



**THIRD QUARTER 2006**  
**QUARTERLY GROUNDWATER MONITORING REPORT**

**Sampled on July 13, 2006**

**Job # SP-23**

**LOP # 12660**

**BO&T Company Office (BO & T Old Office)**  
211 Railroad Avenue  
Blue Lake, California 95525

September 13, 2006

This *Quarterly Groundwater Monitoring Report* was prepared by SounPacific Environmental Services (SounPacific) for David and Christina Fisch, and includes data from previous studies conducted by Clearwater Group, Inc. (CGI) and SounPacific, and information gathered from a review of relevant files at the Humboldt County Department of Health and Human Services: Division of Environmental Health (HCDEH). BO&T old office (the Site) is located at 211 Railroad Avenue, Blue Lake, California (Figure 1).

**SITE DESCRIPTION**

The Site is surfaced around the current structure with concrete and vegetation. Site improvements include a single story building. The main structure is located in the southern portion of the property with the entrance to the building facing south towards Railroad Avenue. A storage building is located adjacent to the eastern property line immediately north of the primary building (Figure 2). The Site is serviced by public utilities. Surface water is controlled by storm drains.

## **SITE TOPOGRAPHY AND LAND USE**

SounPacific understands that the property is owned by David and Christina Fisch of Valley Springs, California. The main structure is currently used as an office for Fisch Environmental. The surrounding land use in the immediate vicinity is residential with an interspersed commercial properties. Residential properties lie to the north, east, south, and west of the Site. The Site is located approximately 90 feet above mean sea level (amsl). The Mad River is located approximately one half mile to the south and Powers Creek is located approximately one quarter of a mile to the east of the site. The City of Blue Lake is situated in the Mad River flood plain. Site topography slopes gently toward the southwest (Figure 1).

## **ENVIRONMENTAL SITE HISTORY**

Previous studies by CGI and SounPacific indicated the following historical information:

### **1998 UST Removal (CGI)**

Beacom Construction of Fortuna, California (Beacom), performed UST decommissioning and removal work on March 6, 1998. Upon completion of tank removal activities, soil and groundwater samples (SW-1 through SW-4) were collected by CGI from the excavation sidewalls at depths between 7 and 8 feet below ground surface (bgs) (Figure 3). Soil samples (PI-1 and PI-2) were also collected from beneath each end of the pump dispenser island at a depth of three (3) feet bgs (Figure 3). Soil samples (SW-3 and SW-4) collected from the eastern sidewall of the excavation were impacted with the highest concentrations of total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, total xylenes, ethylbenzene (BTXE), methyl tertiary butyl ether (MTBE), TPH as diesel (TPHd), and TPH as motor oil (TPHmo) (Table 1). The remaining samples reported less than 25 parts per million (ppm) of these constituents. A groundwater sample (GW-1) was also collected from water pooled in the bottom of the excavation (Figure 3). This groundwater sample reported in excess of 40,000 parts per billion (ppb) of the above constituents and approximately 100 ppb lead (Table 2).

### **2000 Subsurface Investigation (SounPacific)**

In a letter dated January 14, 1999, HCDEH requested further work to determine the extent of contamination beneath the site, and a sensitive receptor survey within a 1,000-foot radius of the

Site. A Work Plan was subsequently prepared and submitted by CGI in July 1999; however, CGI ceased being the consultant for the site prior to the Work Plan's implementation. SounPacific staff performed a subsurface investigation at the BO&T Old Office on October 24 and 25, 2000. The subsurface investigation was performed in accordance with the approved CGI workplan, submitted July 9, 1999. Ten (10) soil borings (B-1 through B-10) were drilled and soil samples were collected at five-foot intervals beginning at five (5) feet bgs, with the exception of boring B-8, which had an additional sample collected at eight (8) feet bgs (Figure 3). Soil analytical results indicated that the sorbed phase contamination was restricted to boring B-5, which was located just above the former UST pit (Table 1). Groundwater samples were also collected from the boreholes. Groundwater was impacted throughout the site according to analytical results (Table 2). The majority of groundwater impact was reported adjacent to the former UST locations and dispenser areas. All borings reported lead in excess of 100 ppb in the groundwater. Further investigation was deemed necessary in order to define the extent of soil and groundwater impact.

### **2000 Sensitive Receptor Survey (SounPacific)**

In October 2000, SounPacific staff along with Public Works personnel from the City of Blue Lake conducted a door-to-door well survey. Three (3) domestic wells were discovered within a 1,000-foot radius of the site, and their locations were documented in SounPacific's *Report of Findings*, dated December 20, 2000. One domestic well (DW-1) located across E Street, to the west of the site, was sampled during the third quarter 2003 (Figure 2). No analytes were reported at or above detection limits for any constituent analyzed from this well sample.

### **2002 Subsurface Investigation (SounPacific)**

In a letter dated March 1, 2001, the HCDEH requested submittal of a Work Plan to define the extent of the impact, install monitoring wells, and sample wells identified by the sensitive receptor survey. During May 2002, SounPacific staff performed a subsurface investigation at the BO&T Old Office to further determine the horizontal and vertical extent of the soil and groundwater contamination. The investigation consisted of drilling nine (9) soil borings (B-11 through B-16 and MW-1 through MW-3) (Figure 3). Soil samples were collected from six (6) soil borings (B-11 through B-16) at four (4) foot intervals. The soils from boreholes MW-1 through MW-3 were logged, and then the borings were converted to monitoring wells (MW-1 through MW-3). Boring B-12 was the only boring that reported TPH<sub>mo</sub> in excess of 100 ppm (Table 1). Groundwater contamination was detected to the north, in boreholes B-15 and B-16,

and to the west, in boreholes B-11 and B-12. The most significant groundwater contamination in the gasoline, diesel, and motor oil ranges was from borehole B-12 (Table 2). The analytical results from this investigation indicated that delineation of soil and/or groundwater was still necessary to the east, west and south of the site.

### **2005 Subsurface Investigation (SounPacific)**

During January 11 & 12, 2005, SounPacific performed a subsurface investigation at the BO&T Old Office to further delineate the groundwater contamination to the east, west, and south of the Site, and determine the vertical extent of the MTBE plume using depth discrete sampling. The soil delineation consisted of drilling two (2) onsite soil borings (B-19 and B-20) and two (2) offsite soil borings (B-17 and B-18) (Figure 3). The only significant soil analytical result reported from this investigation was from boring B-20, where an elevated concentration of TPHg was detected at 12 feet bgs (Table 1). Soil analytical results including previous investigations have indicated that the soil contamination is delineated onsite, to the south of the Site, to the east of the Site, and to the north of the Site. Lateral and vertical soil delineation is still necessary to the west of the Site. Groundwater samples were collected from borings B-17 through B-25 to determine the lateral and vertical extent of the groundwater plume. The groundwater plume appears to be flowing in a southwesterly direction according to analytical results from this investigation (Table 2); however, groundwater levels were only observed at approximately 3-4 feet bgs during this investigation and groundwater samples collected from the borehole locations were collected at the soil/groundwater interface. Steeply dipping groundwater plumes, if present, could not be properly characterized vertically until depth discrete groundwater samples were collected. Further investigation would be necessary for adequate lateral and vertical delineation of the contamination.

### **2006 Subsurface Investigation (SounPacific)**

During February 16, 17, and March 10, 2006, SounPacific staff performed a subsurface investigation at the BO&T Old Office to further delineate the groundwater contamination to the east, west, and south of the Site.

Soil samples collected during the recent drilling program did not reveal the presence of any significant impact at the drilling locations (Table 1). One (1) soil sample (MW-6 @ 8') contained 0.0144 ppm of MTBE. The remaining soil samples were ND for all analytes (Table 1).

Groundwater samples from the initial three (3) monitoring wells (MW-1, MW-2, and MW-3) were all impacted, primarily by MTBE, therefore, the lateral extent of the groundwater contamination, as determined from initial monitoring wells, was undetermined. In addition, the vertical distribution of any contamination of the groundwater, particularly by MTBE was undefined. Grab groundwater sample MW-5 @ 8' contained 292 ppb TPHg and 500 PPB MTBE. Grab groundwater sample MW-7 @ 20' contained 243 ppb TPHg and 360 PPB MTBE. Samples MW-6 @ 8' and MW-7 @ 8' contained less than 5 ppb MTBE (Table 2).

Samples collected from the new monitoring wells after development and purging contained TPHg and MTBE. MW-5 and MW-7 contained both TPHg and MTBE at 82.7/122 ppb and 51.8/79.7 ppb, respectively. MW-6 contained 37.5 ppb MTBE, while MW-8 contained a trace of MTBE at 2.5 ppb and MW-9 was ND for all analytes. Lead was detected in all five (5) water samples at typical background concentrations ranging from 21 to 51 ppb (Table 3).

## **RESULTS OF QUARTERLY SAMPLING**

A quarterly groundwater monitoring program was implemented at the site in July 2002. Quarterly water level measurements are recorded to continue to track groundwater flow direction and gradient. Quarterly groundwater samples are collected to monitor petroleum hydrocarbon contamination in the groundwater beneath the Site. The current monitoring event was conducted on July 13, 2006, during which the eight monitoring wells at the site were gauged and sampled.

## **MONITORING WELL STATUS**

<b>WELL/DATE DRILLED</b>	<b>STATUS</b>	<b>MAINTENANCE / NOTES</b>
MW-1/2002	ACTIVE	No sheen, No HC odor
MW-2/2002	ACTIVE	Suspected iron sheen, No HC odor
MW-3/2002	ACTIVE	Suspected iron sheen, No HC odor, Strong organic odor
MW-4	Never Installed	N/A
MW-5/2006	ACTIVE	Suspected iron sheen, No HC odor
MW-6/2006	ACTIVE	Trailer was on top of well cover

MW-7/2006	ACTIVE	Suspected iron sheen, No HC odor
MW-8/2006	ACTIVE	Suspected iron sheen, No HC odor
MW-9/2006	ACTIVE	Suspected iron sheen, No HC odor, Mild organic odor

### **FIELD DATA**

**Wells gauged:** MW-1, 2, 3, 5, 7, 8, and 9. MW-6 could not be accessed.

**Groundwater level:** Ranged from 4.31 to 6.65 feet below top of casing (btc) (Table 4)

**Groundwater elevation:** Ranged from 82.81 to 84.68 feet amsl (Table 4)

**Floating product:** Not Reported

**GW flow direction:** West (Figure 4)

**GW gradient:** 0.02 feet per foot (Figure 4)

On July 13, 2006, the depth to groundwater in the site's seven accessible monitoring wells ranged from 4.31 feet btc in well MW-9 to 6.65 feet btc in well MW-5. When corrected to mean sea level, water level elevations ranged from 82.81 feet amsl in MW-8 to 84.68 feet amsl in MW-2. Groundwater levels for the July 13, 2006 monitoring event, along with historical levels and elevations are included in Table 4. Groundwater flow was towards the west at a gradient of 0.02 feet per foot. The groundwater flow direction and gradient are graphically depicted in Figure 4. Prior to sampling, all wells were purged; the groundwater field parameters for each well are presented below.

### **MONITORING WELL MW-1 GROUNDWATER FIELD PARAMETERS**

Time	Total Removed (gallons)	pH	Temp./ F	Cond./ ms(cm) <sup>-1</sup>
1:09 pm	0	6.26	60.54	0.500
1:14	1.3	6.22	60.94	0.440
1:17	2.6	6.21	60.69	0.435
1:21	3.9	6.20	60.04	0.443

**MONITORING WELL MW-2 GROUNDWATER FIELD PARAMETERS**

Time	Total Removed (gallons)	pH	Temp./ F	Cond./ ms(cm) <sup>-1</sup>
12:47 pm	0	6.35	59.30	0.297
12:52	1.3	6.43	61.58	0.312
12:55	2.6	6.45	61.94	0.294
12:59	3.9	6.43	60.98	0.299

**MONITORING WELL MW-3 GROUNDWATER FIELD PARAMETERS**

Time	Total Removed (gallons)	pH	Temp./ F	Cond./ ms(cm) <sup>-1</sup>
11:08 am	0	6.79	61.41	0.520
11:13	1.4	6.49	63.54	0.201
11:16	2.7	6.34	63.26	0.181
11:19	4.1	6.22	63.33	0.175

**MONITORING WELL MW-5 GROUNDWATER FIELD PARAMETERS**

Time	Total Removed (gallons)	pH	Temp./ F	Cond./ ms(cm) <sup>-1</sup>
12:23 pm	0	6.49	57.73	0.597
12:27	1.0	6.61	58.70	0.360
12:31	2.0	6.51	58.49	0.293
12:39	3.0	6.47	58.45	0.289

**MONITORING WELL MW-7 GROUNDWATER FIELD PARAMETERS**

Time	Total Removed (gallons)	pH	Temp./ F	Cond./ ms(cm) <sup>-1</sup>
10:38 am	0	5.92	60.87	0.161
10:46	1.0	6.05	62.18	0.184
10:49	1.9	6.00	62.09	0.178
10:52	2.9	6.02	62.25	0.189

**MONITORING WELL MW-8 GROUNDWATER FIELD PARAMETERS**

Time	Total Removed (gallons)	pH	Temp./ F	Cond./ ms(cm) <sup>-1</sup>
11:08 am	0	6.79	61.41	0.520
11:13	1.1	6.49	63.54	0.201
11:16	2.1	6.34	63.26	0.181
11:19	3.2	6.22	63.33	0.175

**MONITORING WELL MW-9 GROUNDWATER FIELD PARAMETERS**

Time	Total Removed (gallons)	pH	Temp./ F	Cond./ ms(cm) <sup>-1</sup>
11:58 am	0	6.04	59.72	0.152
12:02	1.3	6.38	62.54	0.159
12:06	2.6	6.45	61.24	0.182
12:09	3.9	6.35	60.79	0.155

**ANALYTICAL RESULTS**

**Sampling locations:** MW-1, 2, 3, 5, 7, 8, and 9, (Well MW-4 was never installed)

**Analyses performed:** TPHg, BTXE, MTBE, DIPE, TAME, ETBE, and TBA

**Laboratories Used:** Basic Labs, Redding, California (ELAP #1677)



The analytical results for the current monitoring event are presented below and graphically depicted in Figure 5. The laboratory report is included in Appendix A. The historical analytical results for all monitoring wells, since the implementation of groundwater monitoring are included as Table 3. Standard operating procedures and field notes are attached in Appendices B and C, respectively. No sample was collected from MW-6, as a trailer was parked on the well that could not be moved, preventing access to the well.

	<u>MW-1</u> ppb	<u>MW-2</u> ppb	<u>MW-3</u> ppb	<u>MW-5</u> ppb	<u>MW-6</u> ppb	<u>MW-7</u> ppb	<u>MW-8</u> ppb	<u>MW-9</u> ppb
TPHg:	<b>278</b>	<b>726</b>	<b>7,050</b>	<b>239</b>	----	<b>467</b>	ND < 50.0	ND < 50.0
Benzene:	ND < 0.5	<b>1.0</b>	ND < 40.0	ND < 0.5	----	ND < 0.5	ND < 0.5	ND < 0.5
Toluene:	ND < 0.5	ND < 1.0	ND < 40.0	ND < 0.5	----	ND < 0.5	ND < 0.5	ND < 0.5
Total Xylenes:	ND < 1.0	ND < 2.0	ND < 80.0	ND < 1.0	----	ND < 1.0	ND < 1.0	ND < 1.0
Ethylbenzene:	ND < 0.5	ND < 1.0	ND < 40.0	ND < 0.5	----	ND < 0.5	ND < 0.5	ND < 0.5
MTBE:	342	785	8,110	304	----	551	7.5	7.5
DIPE:	ND < 0.5	ND < 1.0	ND < 40.0	ND < 0.5	----	ND < 0.5	ND < 0.5	ND < 0.5
TAME:	<b>0.8</b>	<b>7.9</b>	<b>55.2</b>	<b>2.3</b>	----	<b>2.9</b>	ND < 0.5	ND < 0.5
ETBE:	ND < 0.5	ND < 1.0	ND < 40.0	ND < 0.5	----	ND < 0.5	ND < 0.5	ND < 0.5
TBA:	ND < 50.0	ND < 100	ND < 4,000	ND < 50.0	----	ND < 50.0	ND < 50.0	ND < 50.0

ND = non-detect

## **COMMENTS AND RECOMMENDATIONS**

The monitoring event for the site's seven accessible monitoring wells (MW-1, 2, 3, 5, 6, 7, 8, and 9) was conducted on July 13, 2006. A summary of the results are presented below.

- The general groundwater flow is to the west at a gradient of 0.02 ft/ft. This is consistent with previous flow directions.
- Groundwater samples from seven (7) of the site's eight (8) monitoring wells were collected and analyzed for TPHg, BTXE, and five fuel oxygenates. TPHg was reported

in five of the wells at concentrations that ranged from 239 ppb (MW-5) to 7,050 ppb (MW-3). With the exception of 1.0 ppb benzene in MW-2, no BTXE was reported in any well. MTBE was reported in all seven (7) sampled monitoring wells, five (5) wells (MW-1, MW-2, MW-3, MW-5, and MW-7) reporting concentration in excess of 300 ppb. Laboratory results continue to indicate the highest MTBE concentrations (8,110 ppb) from well MW-3.

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Based upon the monitoring and sampling results the following observations and conclusions have been made:

- The primary contaminants at the site are TPHg and MTBE. TPHg concentrations show significant fluctuation, although the highest concentrations are consistently in MW-3, where concentrations have consistently been greater than 5,700 ppb since April 2004. MTBE has been reported in every well during the majority of sampling events thus far, with the highest concentrations reported in well MW-3. In MW-3, the MTBE concentrations appear to be gradually decreasing over time. Changes in the contaminant concentrations in each well are presented in Figures 6-12.
- There is a general correlation between water levels and contaminant concentrations. As water levels rise, the concentration of TPHg, and particularly MTBE, decreases and vice versa (see Chart 1 and Figures 6 and 7). This occurs in all wells except MW-3 which is very near to the former USTs and the release site.
- The extent of the MTBE appears to be undefined to the south of MW-5, to the west and north of MW-7, to the north of MW-1 and MW-6, and to the east of MW-2, MW-5, and MW-6. However, access in all these area is difficult, due to being on private property and/or the present of existing structures. Also, the vertical distribution of MTBE is generally undefined throughout the site, particularly on the subject property.

Based on the results of this monitoring event combined with historical results, the following future activities are proposed:

- Quarterly groundwater monitoring will be continued. Quarterly groundwater level
- SounPacific ♦ Ph# (707) 269-0884 ♦ P.O. Box 13 ♦ Kneeland, CA 95549-0013 ♦ Fax# (707) 269-0699 ♦ [Cleanup@SounPacific.com](mailto:Cleanup@SounPacific.com)

measurements will be collected from the monitoring wells to determine groundwater flow direction and gradient. Groundwater will continue to be analyzed for TPHg, BTXE, and fuel oxygenates.

- In May 2006 a Corrective Action Plan (CAP) for the site was submitted to HCEHD for review that proposed the use of chemical oxidization as a remedial option for site. However, prior to the implementation of the plan, a bench test and pilot test would be conducted to determine the nature of the remedial plan. In addition, a fuller understanding of the subsurface geology and the vertical delineation of the MTBE is required to maximize the remediation implementation. A Work Plan for this work is currently being prepared and will be submitted to HCDEH in the near future.

## CERTIFICATION

This report was prepared under the direct supervision of a California registered geologist at SounPacific. All information provided in this report including statements, conclusions, and recommendations are based solely on field observations and analyses performed by a State-certified laboratory. SounPacific is not responsible for laboratory errors.

SounPacific performs all work in a manner consistent with industry standards used by scientists in the same or similar professions conducting the same or similar work, in the same or similar geographic area. SounPacific will and has taken reasonable steps to assure that data collection is accurate. Please note that rain, buried utilities, and other factors can influence groundwater depths, directions and other factors beyond what SounPacific could reasonably determine.

SounPacific

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## **ATTACHMENTS**

### **TABLES & CHART**

- Table 1: Soil Analytical Results  
Table 2: Groundwater Analytical Results from Boreholes  
Table 3: Groundwater Analytical Results from Monitoring Wells  
Table 4: Water Levels  
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### **FIGURES**

- Figure 1: Aerial/Topo Map  
Figure 2: Site Plan  
Figure 3: Sample Location Map  
Figure 4: Groundwater Flow Direction & Gradient: July 2006  
Figure 5: Groundwater Analytical Results  
Figure 6: MW-1 Hydrocarbon Concentrations vs. Time  
Figure 7: MW-2 Hydrocarbon Concentrations vs. Time  
Figure 8: MW-3 Hydrocarbon Concentrations vs. Time  
Figure 9: MW-5 Hydrocarbon Concentrations vs. Time  
Figure 10: MW-7 Hydrocarbon Concentrations vs. Time  
Figure 11: MW-8 Hydrocarbon Concentrations vs. Time  
Figure 12: MW-9 Hydrocarbon Concentrations vs. Time

### **APPENDICES**

- Appendix A: Laboratory Report and Chain-of-Custody Form  
Appendix B: Standard Operating Procedures  
Appendix C: Field Notes

## **Tables & Chart**

**Table 1**  
**Soil Analytical Results**  
Big Oil and Tire Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	TPHd (ppm)	TPHmo (ppm)	Total Pb (ppm)
SW-1	SW-1	3/6/1998	24	0.53	ND < 0.16	0.085	0.33	1.4	1.1	ND < 10	9.3
SW-2	SW-2	3/6/1998	9.3	0.067	0.26	0.92	0.17	ND < 0.10	24	ND < 10	9
SW-3	SW-3	3/6/1998	110	1.8	1.3	5.71	2.2	2.9	6.6	60	43
SW-4	SW-4	3/6/1998	120	2.6	1.1	11.2	2.1	5.1	7.9	52	7
PI-1	PI-1	3/6/1998	2.3	0.027	0.18	0.192	0.037	0.056	ND < 1.0	ND < 10	7.7
PI-2	PI-2	3/6/1998	1.7	0.097	0.12	0.102	0.02	0.15	ND < 1.0	11	10
B-1 @ 5'	B-1	10/24/2000	ND < 1.0	0.0056	ND < 0.010	ND < 0.005	ND < 0.005	0.062	ND < 1.0	ND < 10	9.3
B-1 @ 10'	B-1	10/24/2000	ND < 1.0	0.0057	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	8.8
B-1 @ 15'	B-1	10/24/2000	ND < 1.0	0.0069	ND < 0.005	ND < 0.005	ND < 0.005	0.16	ND < 1.0	ND < 10	9.7
B-2 @ 5'	B-2	10/24/2000	ND < 1.0	0.0059	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	8.1
B-2 @ 10'	B-2	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	0.11	ND < 1.0	ND < 10	10
B-2 @ 15'	B-2	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	9.3
B-3 @ 5'	B-3	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.030	ND < 0.005	ND < 0.005	0.055	ND < 1.0	ND < 10	8.4
B-3 @ 10'	B-3	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	7.1
B-4 @ 5'	B-4	10/24/2000	8.2	ND < 0.005	ND < 0.020	ND < 0.005	ND < 0.005	0.75	ND < 1.0	ND < 10	8.9
B-4 @ 10'	B-4	10/24/2000	1.1	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	0.83	ND < 1.0	ND < 10	8.7
B-4 @ 15'	B-4	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	6.7
B-5 @ 5'	B-5	10/24/2000	120	0.076	ND < 0.50	1.74	0.42	0.58	240	39	11
B-5 @ 10'	B-5	10/24/2000	3.3	5.0	0.41	0.584	0.64	1.6	ND < 1.0	19	12
B-6 @ 5'	B-6	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.020	ND < 0.005	ND < 0.005	0.19	ND < 1.0	ND < 10	8.9
B-6 @ 10'	B-6	10/24/2000	1.8	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	0.85	ND < 1.0	ND < 10	9.4
B-7 @ 5'	B-7	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	8.1
B-7 @ 10'	B-7	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	6.9
B-8 @ 5'	B-8	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	16
B-8 @ 8'	B-8	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	13
B-9 @ 5'	B-9	10/24/2000	ND < 1.0	0.010	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	9.4
B-9 @ 10'	B-9	10/24/2000	ND < 1.0	0.0076	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	9.0
B-10 @ 5'	B-10	10/24/2000	ND < 1.0	ND < 0.005	ND < 0.020	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10	8.9
B-10 @ 10'	B-10	10/24/2000	ND < 1.0	0.0056	ND < 0.010	ND < 0.005	ND < 0.005	1.2	ND < 1.0	ND < 10	7.8

**Table 1 (cont.)**  
**Soil Analytical Results**  
Big Oil and Tire Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	TPHd (ppm)	TPHmo (ppm)	Total Pb (ppm)
SB-11 @ 4'	B-11	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	<b>39.0</b>	----
SB-11 @ 8'	B-11	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.0066</b>	ND < 10	ND < 10	----
SB-11 @ 12'	B-11	5/15/2002	<b>0.93</b>	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.0383</b>	ND < 10	ND < 10	----
SB-12 @ 4'	B-12	5/15/2002	<b>0.195</b>	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.071</b>	ND < 10	ND < 10	----
SB-12 @ 8'	B-12	5/15/2002	<b>1.58</b>	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.897</b>	ND < 10	<b>33.7</b>	----
SB-12 @ 12'	B-12	5/15/2002	<b>2.67</b>	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>1.02</b>	<b>17.6</b>	<b>197</b>	----
SB-13 @ 4'	B-13	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	ND < 10	----
SB-13 @ 8'	B-13	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	ND < 10	----
SB-13 @ 12'	B-13	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	ND < 10	----
SB-14 @ 4'	B-14	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	ND < 10	----
SB-14 @ 8'	B-14	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	ND < 10	----
SB-14 @ 12'	B-14	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	ND < 10	----
SB-15 @ 4'	B-15	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	ND < 10	----
SB-15 @ 8'	B-15	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	ND < 10	----
SB-15 @ 12'	B-15	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.005</b>	ND < 10	ND < 10	----
SB-16 @ 4'	B-16	5/15/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 10	ND < 10	----
SB-16 @ 8'	B-16	5/15/2002	<b>0.174</b>	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.027</b>	ND < 10	ND < 10	----
SB-16 @ 12'	B-16	5/15/2002	<b>0.794</b>	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	<b>0.313</b>	ND < 10	ND < 10	----



**Table 1 (cont.)**  
**Soil Analytical Results**  
 Big Oil and Tire Old Office  
 211 Railroad Avenue  
 Blue Lake, California 95525

[illegible]

**Table 1 (cont.)**  
**Soil Analytical Results**  
Big Oil and Tire Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)
MW-5 @ 4'	MW-5	2/16/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-6 @ 4'	MW-6	2/16/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-6 @ 6'	MW-6	2/16/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-6 @ 8'	MW-6	2/16/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	0.0144	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-7 @ 4'	MW-7	2/15/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-7 @ 7'	MW-7	2/15/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-7 @ 8'	MW-7	2/15/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-8 @ 4'	MW-8	2/15/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-8 @ 6'	MW-8	2/15/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-8 @ 8'	MW-8	2/15/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-9 @ 4'	MW-9	2/15/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-9 @ 6'	MW-9	2/15/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
MW-9 @ 8'	MW-9	2/15/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
B-26 @ 4'	B-26	2/16/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
B-26 @ 6'	B-26	2/16/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----
B-26 @ 8'	B-26	2/16/2006	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	----	----

notes:

TPHg: Total petroleum hydrocarbons as gasoline  
MTBE: Methyl tertiary butyl ether  
DIPE: Diisopropyl ether  
TAME: Tertiary amyl methyl ether  
ETBE: Ethyl tertiary butyl ether  
TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel  
TPHmo: Total petroleum hydrocarbons as motor oil  
Pb: lead  
ND: Not detected at or below the method detection limit as shown.  
ppm: parts per million = µg/g = mg/kg = 1000 µg/kg

**Table 2**  
**Groundwater Analytical Results from Boreholes**  
 Big Oil and Tire Old Office  
 211 Railroad Avenue  
 Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)	Methanol (ppb)	Ethanol (ppb)	Total Pb (ppb)
GW-1	GW-1	3/6/1998	180,000	19,000	16,000	15,700	3,400	65,000	----	----	----	----	230,000	48,000	----	----	130
B-1	B-1	10/25/2000	110	ND < 0.50	ND < 0.50	ND < 0.50	ND < 0.50	120	----	----	----	----	ND < 50	ND < 170	----	----	1,800
B-3	B-3	10/25/2000	390	ND < 0.50	ND < 0.50	ND < 0.50	ND < 0.50	630	----	----	----	----	ND < 50	ND < 170	----	----	130
B-5	B-5	10/25/2000	35,000	4,100	13	408.5	460	12,000	----	----	----	----	21,000	5,100	----	----	770
B-6	B-6	10/25/2000	13,000	ND < 0.50	ND < 1.0	ND < 0.50	ND < 0.50	13,000	----	----	----	----	ND < 50	ND < 170	----	----	410
B-7	B-7	10/25/2000	57	ND < 0.50	ND < 0.50	ND < 0.50	ND < 0.50	47	----	----	----	----	ND < 50	ND < 170	----	----	130
B-8	B-8	10/25/2000	ND < 50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 0.50	15	----	----	----	----	ND < 50	ND < 170	----	----	2,900
B-9	B-9	10/25/2000	180	ND < 0.50	ND < 0.50	ND < 0.50	ND < 0.50	38	----	----	----	----	ND < 50	ND < 170	----	----	170
B-10	B-10	10/25/2000	12,000	ND < 0.50	ND < 2.0	ND < 0.50	ND < 0.50	20,000	----	----	----	----	ND < 50	ND < 170	----	----	110
GWSB-11 @ 12'	B-11	5/15/2002	3,710	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	2,840	ND < 0.5	11.8	ND < 0.5	ND < 40	ND < 50	ND < 50	ND < 5,000	ND < 5,000	----
GWSB-12 @ 12'	B-12	5/15/2002	25,800	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	28,865	ND < 0.5	94.9	ND < 0.5	ND < 40	ND < 50	ND < 50	ND < 5,000	ND < 5,000	----
GWSB-13 @ 12'	B-13	5/15/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	31.7	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	ND < 50	ND < 50	ND < 5,000	ND < 5,000	----
GWSB-14 @ 16'	B-14	5/16/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	ND < 2.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	ND < 50	ND < 50	ND < 5,000	ND < 5,000	----
GWSB-15 @ 12'	B-15	5/15/2002	245	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	127	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	ND < 50	ND < 50	ND < 5,000	ND < 5,000	----
GWSB-16 @ 12'	B-16	5/15/2002	3,740	53.2	1.2	6.5	18.2	3,860	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	ND < 50	ND < 50	ND < 5,000	ND < 5,000	----
SBGW-17	B-17	1/12/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	684	201	----	----	----
SBGW-18	B-18	1/12/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	13.7	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50	----	----	----
SBGW-19	B-19	1/12/2005	614	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	902	ND < 0.5	10.0	ND < 5.0	ND < 50	ND < 50	ND < 50	----	----	----
SBGW-20	B-20	1/12/2005	2,400	107	5.8	44.5	181	1,490	ND < 5.0	ND < 5.0	ND < 5.0	ND < 500	9,440	3,620	----	----	----
SBGW-21	B-21	1/12/2005	97.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	139	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	118	----	----	----
SBGW-22	B-22	1/11/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50	----	----	----
SBGW-23	B-23	1/11/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50	----	----	----
SBGW-24	B-24	1/11/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	7.2	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50	----	----	----
SBGW-25	B-25	1/11/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 77	ND < 77	----	----	----

**Table 2 (cont.)**  
**Groundwater Analytical Results from Boreholes**  
Big Oil and Tire Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)	Methanol (ppb)	Ethanol (ppb)	Total Pb (ppb)
MW-5(GW) @ 8'	MW-5	2/16/2006	292	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	500	ND < 0.5	3.6	ND < 0.50	ND <50.0	----	----	----	----	----
MW-6(GW) @ 8'	MW-6	2/16/2006	ND <50.0	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	2.0	ND < 0.5	ND < 0.50	ND < 0.50	ND <50.0	----	----	----	----	----
MW-6(GW) @ 30'	MW-6	2/16/2006	ND <50.0	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	ND <1.0	ND < 0.5	ND < 0.50	ND < 0.50	ND <50.0	----	----	----	----	----
MW-7(GW) @ 8'	MW-7	2/15/2006	ND <50.0	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	3.2	ND < 0.5	ND < 0.50	ND < 0.50	ND <50.0	----	----	----	----	----
MW-7(GW) @ 20'	MW-7	2/15/2006	243	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	360	ND < 0.5	1.9	ND < 0.50	ND <50.0	----	----	----	----	----
MW-8(GW) @ 8'	MW-8	2/15/2006	ND <50.0	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	ND <1.0	ND < 0.5	ND < 0.50	ND < 0.50	ND <50.0	----	----	----	----	----
MW-8(GW) @ 20'	MW-8	2/15/2006	ND <50.0	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	ND <1.0	ND < 0.5	ND < 0.50	ND < 0.50	ND <50.0	----	----	----	----	----
MW-8(GW) @ 30'	MW-8	2/15/2006	ND <50.0	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	ND <1.0	ND < 0.5	ND < 0.50	ND < 0.50	ND <50.0	----	----	----	----	----
B-26(GW) @ 8'	B-26	2/16/2006	ND <50.0	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	ND <1.0	ND < 0.5	ND < 0.50	ND < 0.50	ND <50.0	----	----	----	----	----
B-26(GW) @ 20'	B-26	2/16/2006	ND <50.0	ND < 0.50	ND < 0.50	ND <1.0	ND < 0.50	ND <1.0	ND < 0.5	ND < 0.50	ND < 0.50	ND <50.0	----	----	----	----	----

notes:

TPHg: Total petroleum hydrocarbons as gasoline  
MTBE: Methyl tertiary butyl ether  
DIPE: Diisopropyl ether  
TAME: Tertiary amyl methyl ether  
ETBE: Ethyl tertiary butyl ether  
TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel  
TPHmo: Total petroleum hydrocarbons as motor oil  
Pb: lead  
ND: Not detected at or below the method detection limit as shown.  
ppb: parts per billion = µg/l = .001 mg/l = 0.001 ppm.

**Table 3**  
**Groundwater Analytical Results from Monitoring Wells**  
 Big Oil and Tire Old Office  
 211 Railroad Avenue  
 Blue Lake, California 95525

Sample Location	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)	Lead (ppb)
MW-1	5/19/2002	364	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	344	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	170		----
	7/16/2002	144	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	234	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	235	ND < 50	----
	10/15/02	99.3	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	225	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	ND < 50	ND < 50	----
	1/13/2002	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	130	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----
	4/11/2003	ND < 50	ND < 5.0	ND < 5.0	ND < 10	ND < 5.0	150	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 500	----
	7/14/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1	ND < 0.5	370	ND < 0.5	0.5	ND < 0.5	54	ND < 50	ND < 500	----
	10/26/2003	ND < 50	ND < 5.0	ND < 5.0	ND < 10.0	ND < 5.0	190	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 500	----
	1/17/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	89	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----
	4/22/2004	160	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	260	ND < 0.5	0.8	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----
	7/23/2004	ND < 500	ND < 5.0	ND < 5.0	ND < 15	ND < 5.0	370	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 500	----
	10/31/2004	66	ND < 0.5	ND < 0.5	ND < 1.5	ND < 0.5	100	ND < 0.5	0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----
	1/21/2005	79.1	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	91.3	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50	----
	4/29/2005	163	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	234	----	----	----	----	----	----	----
	7/21/2005	366	ND < 1.2	ND < 1.2	ND < 2.5	ND < 1.2	408	ND < 1.2	ND < 1.2	ND < 1.2	ND < 125	----	----	----
	10/27/2005	162	ND < 1.2	ND < 1.2	ND < 2.5	ND < 1.2	250	ND < 1.2	1.2	ND < 1.2	ND < 125	----	----	----
MW-2	1/22/2006	63.1	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	92.6	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	----	----	----
	4/14/2006	113	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	125	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	----	----	ND < 15
	7/13/2006	278	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	342	ND < 0.5	0.8	ND < 0.5	ND < 50.0	----	----	----
	5/19/2002	7,830	1,000	ND < 30	128	127	1,600	ND < 50	ND < 50	ND < 50	ND < 4,000	788	614	----
	7/16/2002	4,980	383	11.1	33.7	57.4	10,700	ND < 10	102	ND < 10	ND < 2000	322	ND < 50	----
	10/15/02	3,370	127	3.2	1.7	5.5	15,000	ND < 0.5	86.2	ND < 0.5	ND < 100	ND < 50	ND < 50	----
	1/13/2002	120	12	ND < 0.5	ND < 1.0	1.0	170	ND < 0.5	1.6	ND < 0.5	ND < 5.0	ND < 50	ND < 500	----
	4/11/2003	240	38	ND < 5.0	ND < 10	5.1	180	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	57	ND < 500	----
	7/14/2003	220	5	ND < 5.0	ND < 10	ND < 5.0	1,100	ND < 5.0	9	ND < 5.0	ND < 50	ND < 50	ND < 500	----
	10/26/2003	730	60	ND < 50	ND < 100	ND < 50	6,500	ND < 50	65	ND < 50	ND < 500	ND < 50	ND < 500	----
	1/17/2004	ND < 500	15	ND < 5.0	ND < 10	ND < 5.0	150	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	70	ND < 500	----
	4/22/2004	ND < 500	24	16	ND < 10	ND < 5.0	190	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 500	----
	7/23/2004	1,600	9.3	ND < 5.0	ND < 15	ND < 5.0	4,000	ND < 5.0	29	ND < 5.0	ND < 50	75	ND < 500	----
	10/31/2004	550	11	ND < 5.0	ND < 15	ND < 5.0	660	ND < 5.0	5.6	ND < 5.0	ND < 50	67	ND < 500	----
	1/21/2005	159	9.0	0.7	ND < 1.0	2.1	142	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50	----
	4/29/2005	173	18.8	ND < 1.2	ND < 2.5	5.4	170	----	----	----	----	----	----	----
	7/21/2005	1,410	8.9	ND < 5.0	ND < 10.0	ND < 5.0	1,650	ND < 5.0	16.0	ND < 5.0	ND < 500	----	----	----
	10/27/2005	2,100	19.3	ND < 5.0	ND < 10.0	ND < 5.0	3,960	ND < 5.0	34.8	ND < 5.0	ND < 500	----	----	----
	1/22/2006	73.0	4.4	ND < 0.5	ND < 1.0	ND < 0.5	92.5	ND < 0.5	0.8	ND < 0.5	ND < 50.0	----	----	----
	4/14/2006	101	10.1	ND < 0.5	ND < 1.0	2.0	85.6	ND < 0.5	0.9	ND < 0.5	ND < 50.0	----	----	64
	7/13/2006	726	1.0	ND < 1.0	ND < 2.0	ND < 1.0	785	ND < 1.0	7.9	ND < 1.0	ND < 100	----	----	----

**Table 3 (cont.)**  
**Groundwater Analytical Results from Monitoring Wells**

Big Oil and Tire Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Sample Location	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)	Lead (ppb)
MW-3	5/19/2002	13,300	ND < 30	ND < 30	ND < 60	ND < 30	49,312	ND < 50	ND < 50	ND < 50	ND < 4,000	146	ND < 50	----
	7/16/2002	12,400	ND < 6.0	ND < 6.0	ND < 12.0	ND < 6.0	36,700	ND < 10	109	ND < 10	ND < 2000	200	ND < 50	----
	10/15/02	5,690	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	25,800	ND < 0.5	104	ND < 0.5	ND < 100	ND < 50	ND < 50	----
	1/13/2002	1,800	ND < 0.5	ND < 0.5	ND < 0.9	ND < 0.5	11,000	p	71	6.2	1,000	ND < 50	ND < 50	----
	4/11/2003	1,300	ND < 50	ND < 50	ND < 100	ND < 50	11,000	ND < 50	ND < 50	ND < 50	ND < 500	ND < 50	ND < 50	----
	7/14/2003	2,000	ND < 50	ND < 50	ND < 100	ND < 50	19,000	ND < 50	71	ND < 50	ND < 500	ND < 50	ND < 50	----
	10/26/2003	ND < 50	ND < 50	ND < 50	ND < 100	ND < 50	20,000	ND < 50	120	ND < 50	ND < 500	56	ND < 50	----
	1/17/2004	ND < 5,000	ND < 50	ND < 50	ND < 100	ND < 50	11,000	ND < 50	110	ND < 50	ND < 500	ND < 50	ND < 50	----
	4/22/2004	10,000	ND < 50	100	ND < 100	ND < 50	14,000	ND < 50	130	ND < 50	ND < 500	ND < 50	ND < 50	----
	7/23/2004	7,300	ND < 50	ND < 50	ND < 150	ND < 50	13,000	ND < 50	92	ND < 50	ND < 500	120	ND < 50	----
	10/31/2004	7,000	ND < 20	ND < 50	ND < 150	ND < 50	11,000	ND < 50	84	ND < 50	ND < 500	ND < 50	ND < 50	----
	1/21/2005	10,800	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	14,200	ND < 0.5	108	6.6	152	ND < 50	ND < 50	----
	4/29/2005	19,200	ND < 100	284	898	136	12,700	----	----	----	----	----	----	----
	7/21/2005	9,050	ND < 62.5	ND < 62.5	ND < 125	ND < 62.5	11,100	ND < 62.5	ND < 62.5	ND < 62.5	ND < 6,250	----	----	----
	10/27/2005	5,720	ND < 62.5	ND < 62.5	ND < 125	ND < 62.5	7,790	ND < 62.5	63	ND < 62.5	ND < 6,250	----	----	----
	1/22/2006	5,950	ND < 25.0	ND < 25.0	ND < 50.0	ND < 25.0	12,500	ND < 25.0	67	ND < 25.0	ND < 2,500	----	----	----
	4/14/2006	10,800	ND < 50.0	ND < 50.0	ND < 100	ND < 50.0	10,700	ND < 50.0	70	ND < 50.0	ND < 5,000	----	----	22
	7/13/2006	7,050	ND < 40.0	ND < 40.0	ND < 80.0	ND < 40.0	8,110	ND < 40.0	55.2	ND < 40.0	ND < 4,000	----	----	----
DW-1	7/14/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 50	----
MW-5	3/10/2006	82.7	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	122	ND < 0.5	1.0	ND < 0.5	ND < 50	----	----	26
	4/14/2006	163	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	202	ND < 0.5	1.6	ND < 0.5	ND < 50.0	----	----	ND < 15
	7/13/2006	239	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	304	ND < 0.5	2.3	ND < 0.5	ND < 50.0	----	----	----
MW-6	3/10/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	37.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	----	----	21
	4/14/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	28.1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	----	----	ND < 15
	7/13/2006	----	----	----	----	----	----	----	----	----	----	----	----	----
MW-7	3/10/2006	51.8	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	79.7	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	----	----	51
	4/14/2006	101	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	112	ND < 0.5	0.6	ND < 0.5	ND < 50.0	----	----	126
	7/13/2006	467	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	551	ND < 0.5	2.9	ND < 0.5	ND < 50.0	----	----	----
MW-8	3/10/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	2.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	----	----	35
	4/14/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	----	----	67
	4/14/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	7.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	----	----	----
MW-9	3/10/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	----	----	26
	4/14/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	----	----	31
	7/13/2006	ND < 50.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	7.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	----	----	----

Notes:

TPHg: Total Petroleum Hydrocarbons as gasoline

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl Ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

-': Not tested

TBA: Tertiary butanol

TPHd: Total Petroleum Hydrocarbons as diesel

TPHmo: Total petroleum hydrocarbons as motor oil

ND: Not detected. Sample was detected at or below the method detection limit as shown.

ppb: parts per billion = µg/l = .001 mg/l = 0.001 ppm

Analytical results for ethanol and methanol were omitted from this table to save space. All results were reported non-detect.

**Table 4**  
**Water Levels**  
Big Oil and Tire Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Sample Location	Date	Depth to Bottom/ Feet BToC	Survey Height/ Feet AMSL	Depth to Water/ Feet BToC	Adjusted Elevation/ Feet AMSL	Thickness of Floating Product/ Feet
MW-1	5/19/2002	14.19	90.50	5.52	84.98	0.00
	6/16/2002	14.21	90.50	6.35	84.15	0.00
	7/16/2002	14.20	90.50	7.11	83.39	0.00
	8/17/2002	14.18	90.50	8.61	81.89	0.00
	9/11/2002	14.20	90.50	7.53	82.97	0.00
	10/15/2002	14.20	90.50	7.87	82.63	0.00
	11/15/2002	14.20	90.50	6.06	84.44	0.00
	12/16/2002	14.41	90.50	2.52	87.98	0.00
	1/13/2003	14.22	90.50	2.11	88.39	0.00
	2/14/2003	14.18	90.50	3.43	87.07	0.00
	3/12/2003	14.18	90.50	4.08	86.42	0.00
	4/11/2003	14.18	90.50	2.23	88.27	0.00
	7/14/2003	14.39	90.50	6.52	83.98	0.00
	10/26/2003	14.39	90.50	7.70	82.80	0.00
	1/17/2004	14.39	90.50	2.53	87.97	0.00
	4/22/2004	14.39	90.50	3.43	87.07	0.00
	7/23/2004	14.39	90.50	7.35	83.15	0.00
	10/31/2004	14.11	90.50	4.36	86.14	0.00
	1/21/2005	14.37	90.50	3.25	87.25	0.00
	4/29/2005	14.37	90.50	4.05	86.45	0.00
	7/21/2005	14.40	90.50	5.75	84.75	0.00
	10/27/2005	14.37	90.50	5.77	84.73	0.00
	1/22/2006	14.40	90.50	1.62	88.88	0.00
	4/14/2006	14.43	90.44	2.82	87.62	0.00
	7/13/2006	14.43	90.44	6.34	84.10	0.00
MW-2	5/19/2002	14.25	91.20	5.25	85.95	0.00
	6/16/2002	14.23	91.20	6.19	85.01	0.00
	7/16/2002	14.21	91.20	7.12	84.08	0.00
	8/17/2002	14.16	91.20	7.80	83.40	0.00
	9/11/2002	14.14	91.20	7.71	83.49	0.00
	10/15/2002	14.13	91.20	8.28	82.92	0.00
	11/15/2002	14.19	91.20	6.30	84.90	0.00
	12/16/2002	14.43	91.20	3.73	87.47	0.00
	1/13/2003	14.14	91.20	2.25	88.95	0.00
	2/14/2003	14.21	91.20	3.25	87.95	0.00
	3/12/2003	14.15	91.20	3.67	87.53	0.00
	4/11/2003	14.15	91.20	2.20	89.00	0.00
	7/14/2003	14.30	91.20	6.61	84.59	0.00
	10/26/2003	14.30	91.20	8.18	83.02	0.00
	1/17/2004	14.30	91.20	2.37	88.83	0.00
	4/22/2004	14.30	91.20	2.90	88.30	0.00
	7/23/2004	14.30	91.20	7.48	83.72	0.00
	10/31/2004	14.05	91.20	4.19	87.01	0.00
	1/21/2005	14.28	91.20	2.95	88.25	0.00
	4/29/2005	14.22	91.20	3.45	87.75	0.00
	7/21/2005	14.28	91.20	5.40	85.80	0.00
	10/27/2005	14.24	91.20	6.66	84.54	0.00
	1/22/2006	14.31	91.20	1.84	89.36	0.00
	4/14/2006	14.57	91.13	2.58	88.55	0.00
	7/13/2006	14.54	91.13	6.45	84.68	0.00

Notes:

BToC: Below Top of Casing

AMSL: Above Mean Sea Level

**Table 4 (cont.)****Water Levels**

Big Oil and Tire Old Office

211 Railroad Avenue

Blue Lake, California 95525

Sample Location	Date	Depth to Bottom/ Feet BToC	Survey Height/ Feet AMSL	Depth to Water/ Feet BToC	Adjusted Elevation/ Feet AMSL	Thickness of Floating Product/ Feet
MW-3	5/19/2002	14.15	90.37	19.00	71.37	0.00
	6/16/2002	14.20	90.37	5.96	84.41	0.00
	7/16/2002	14.20	90.37	6.88	83.49	0.00
	8/17/2002	14.20	90.37	8.56	81.81	0.00
	9/11/2002	14.19	90.37	7.25	83.12	0.00
	10/15/2002	14.20	90.37	7.34	83.03	0.00
	11/15/2002	14.21	90.37	7.37	83.00	0.00
	12/16/2002	14.46	90.37	5.88	84.49	0.00
	1/13/2003	14.20	90.37	4.70	85.67	0.00
	2/14/2003	14.20	90.37	6.49	83.88	0.00
	3/12/2003	14.20	90.37	5.78	84.59	0.00
	4/11/2003	14.20	90.37	4.55	85.82	0.00
	7/14/2003	14.40	90.37	7.22	83.15	0.00
	10/26/2003	14.40	90.37	7.26	83.11	0.00
	1/17/2004	14.40	90.37	5.11	85.26	0.00
	4/22/2004	14.40	90.37	4.58	85.79	0.00
	7/23/2004	14.40	90.37	7.23	83.14	0.00
	10/31/2004	14.14	90.37	5.79	84.58	0.00
	1/21/2005	14.41	90.37	4.41	85.96	0.00
	4/29/2005	14.42	90.37	5.10	85.27	0.00
	7/21/2005	14.43	90.37	5.94	84.43	0.00
	10/27/2005	14.42	90.37	5.56	84.81	0.00
	1/22/2006	14.40	90.37	2.67	87.70	0.00
	4/14/2006	14.42	90.31	3.45	86.86	0.00
	7/13/2006	14.42	90.31	5.92	84.39	0.00
MW-5	3/10/2006	12.94	91.24	1.93	89.31	0.00
	4/14/2006	12.93	91.24	3.09	88.15	0.00
	7/13/2006	12.92	91.24	6.65	84.59	0.00
MW-6	3/10/2006	12.54	91.11	0.92	90.19	0.00
	4/14/2006	12.53	91.11	2.51	88.60	0.00
	7/13/2006	----	91.11	----	----	----
MW-7	3/10/2006	12.39	89.26	1.83	87.43	0.00
	4/14/2006	12.39	89.26	3.44	85.82	0.00
	7/13/2006	12.38	89.26	6.44	82.82	0.00
MW-8	3/10/2006	12.41	88.57	1.63	86.94	0.00
	4/14/2006	12.40	88.57	2.91	85.66	0.00
	7/13/2006	12.39	88.57	5.76	82.81	0.00
MW-9	3/10/2006	12.49	88.16	0.52	87.64	0.00
	4/14/2006	12.49	88.16	1.19	86.97	0.00
	7/13/2006	12.49	88.16	4.31	83.85	0.00

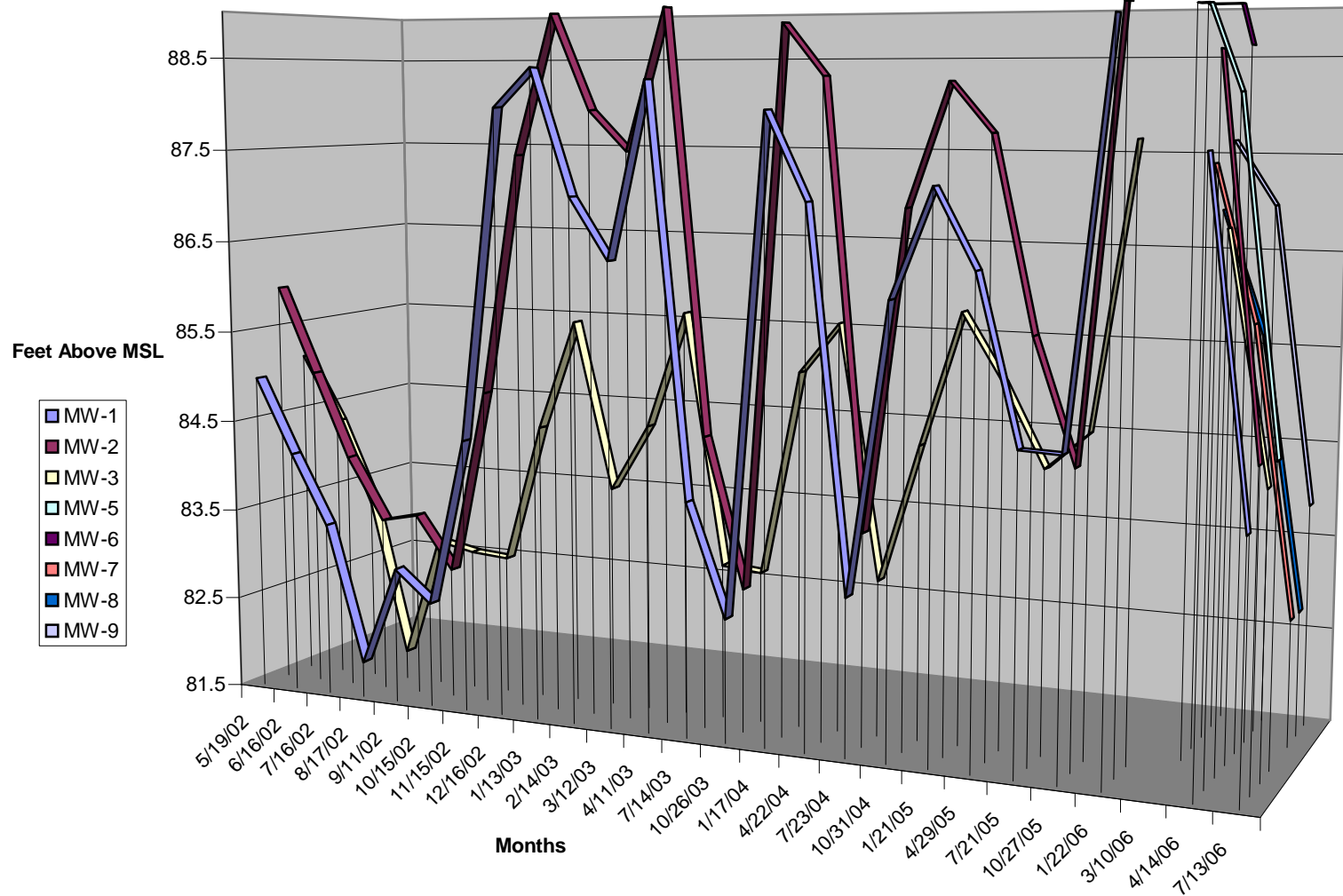
Notes:

BToC: Below Top of Casing

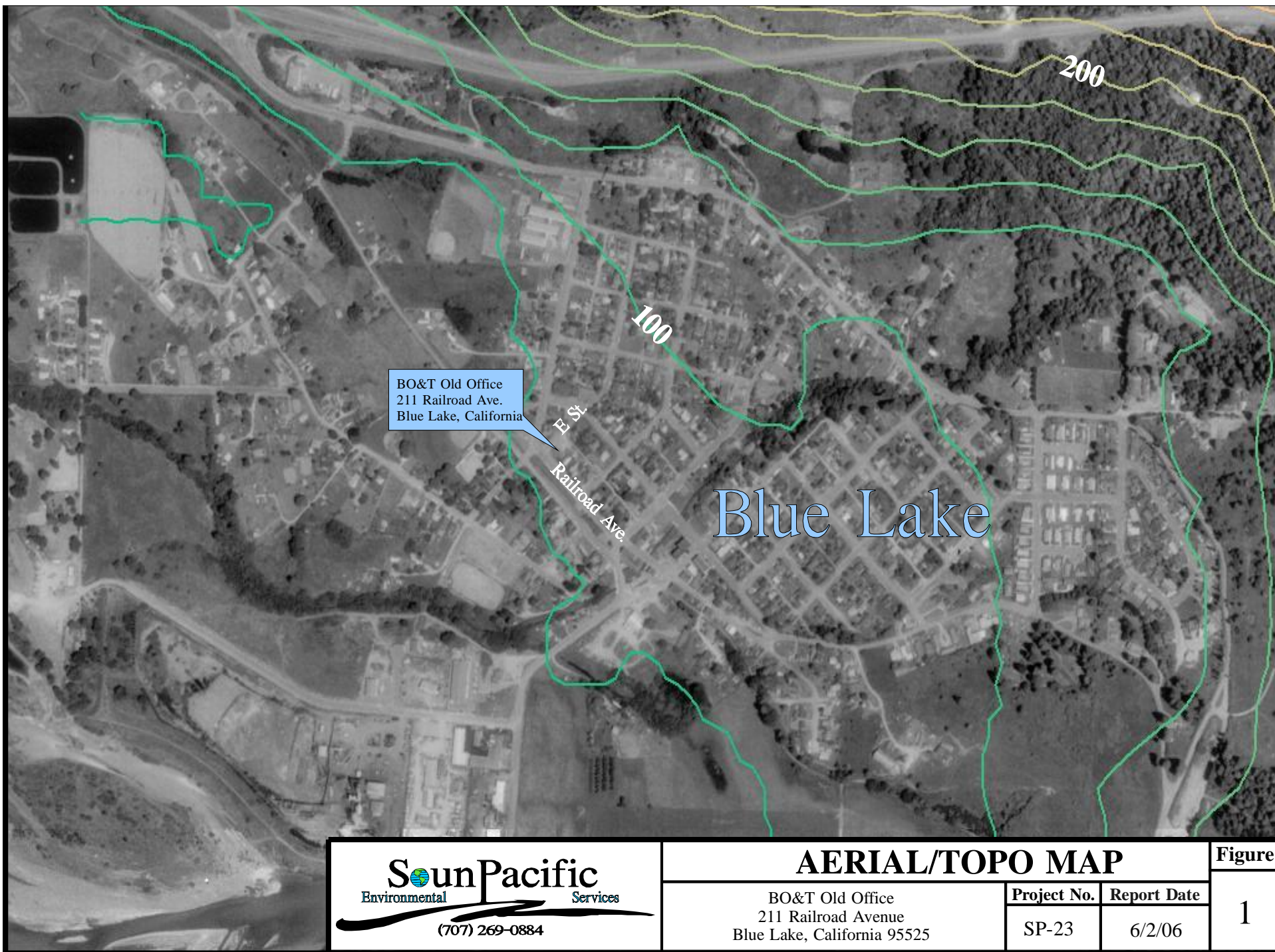
AMSL: Above Mean Sea Level



**Chart 1**  
**Hydrograph**  
BO and T Old Office  
211 Railroad Avenue  
Blue Lake, California 95525



# Figures



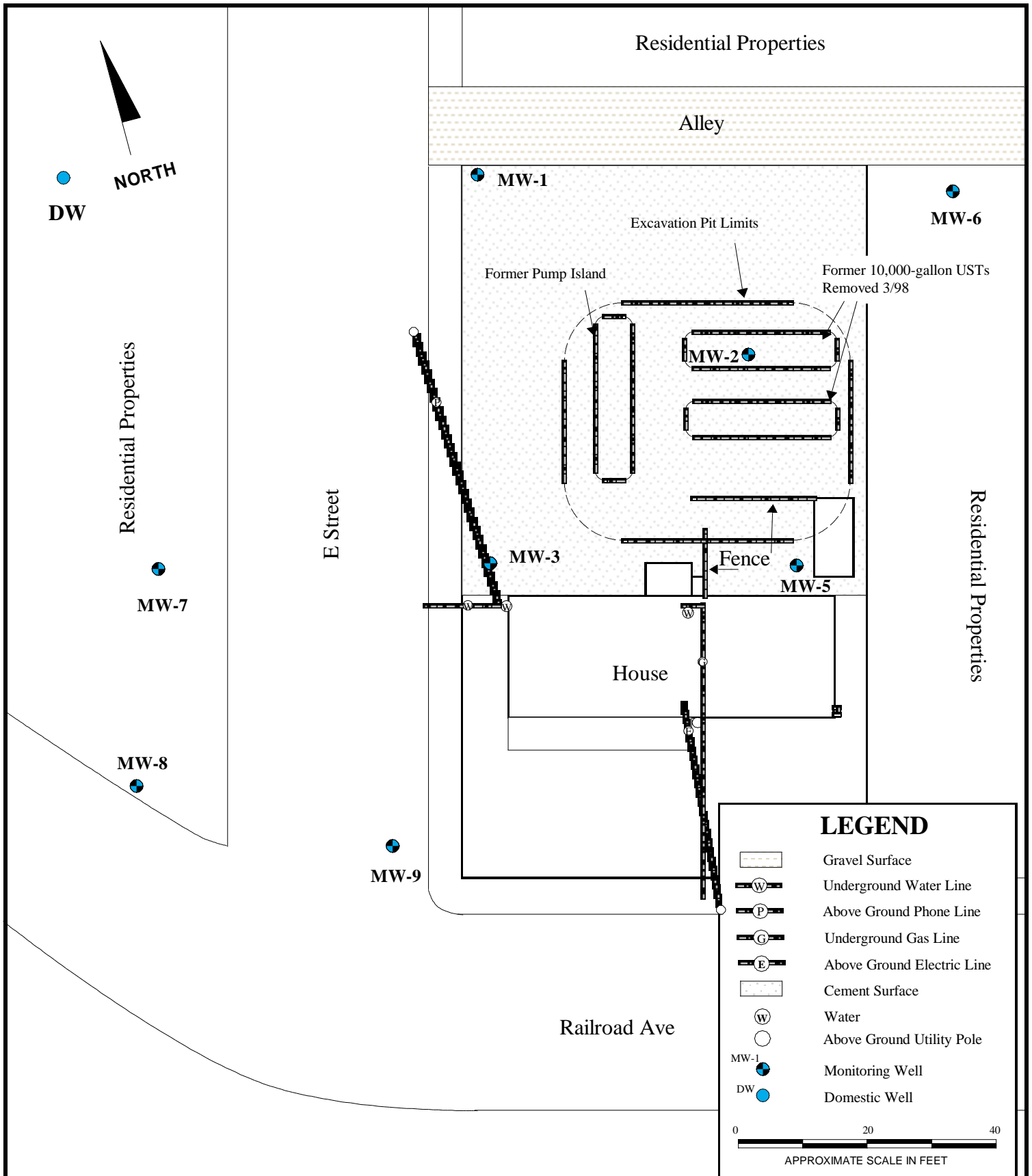
BO&T Old Office  
211 Railroad Ave.  
Blue Lake, California

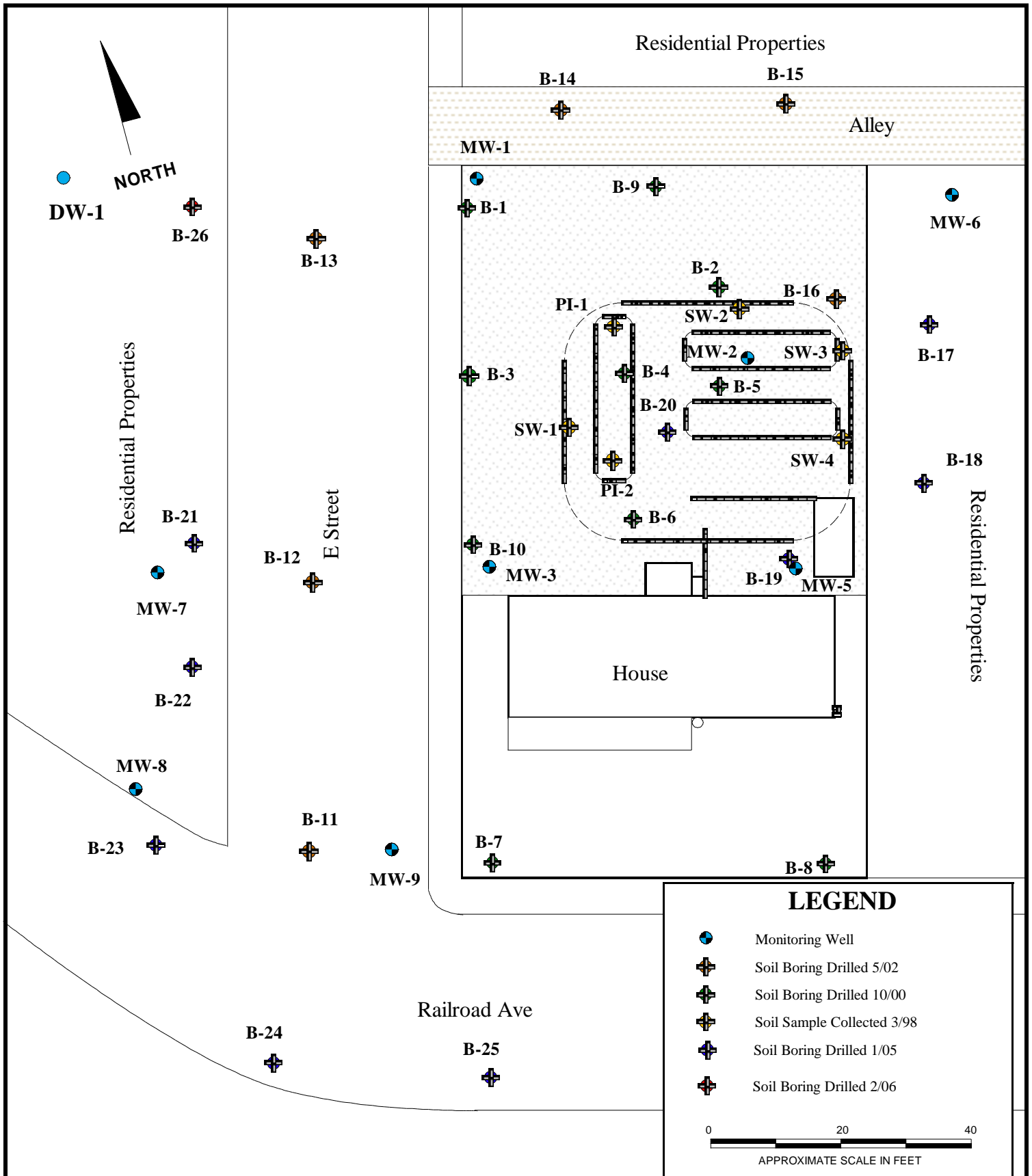
El St.  
Railroad Ave.

Blue Lake

**SounPacific**  
Environmental Services  
(707) 269-0884

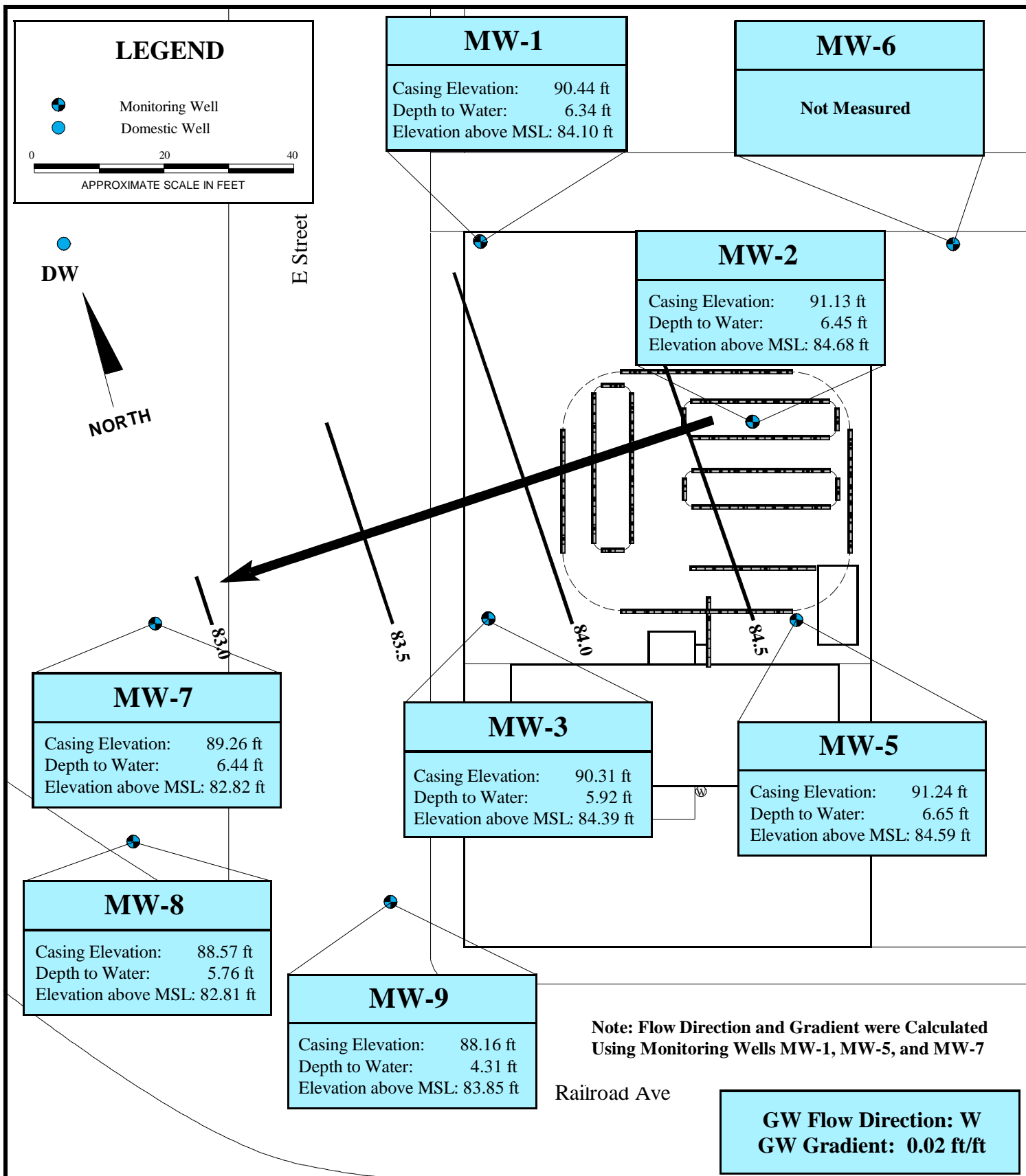
AERIAL/TOPO MAP			Figure 1
BO&T Old Office 211 Railroad Avenue Blue Lake, California 95525	Project No.	Report Date	
	SP-23	6/2/06	





	<b>SAMPLE LOCATION MAP</b>			Figure
	BO&T Old Office 211 Railroad Ave Blue Lake, California 95525	Project No.	Report Date	3
		SP-23	9/13/06	





**GROUNDWATER FLOW DIRECTION & GRADIENT  
JULY 2006**

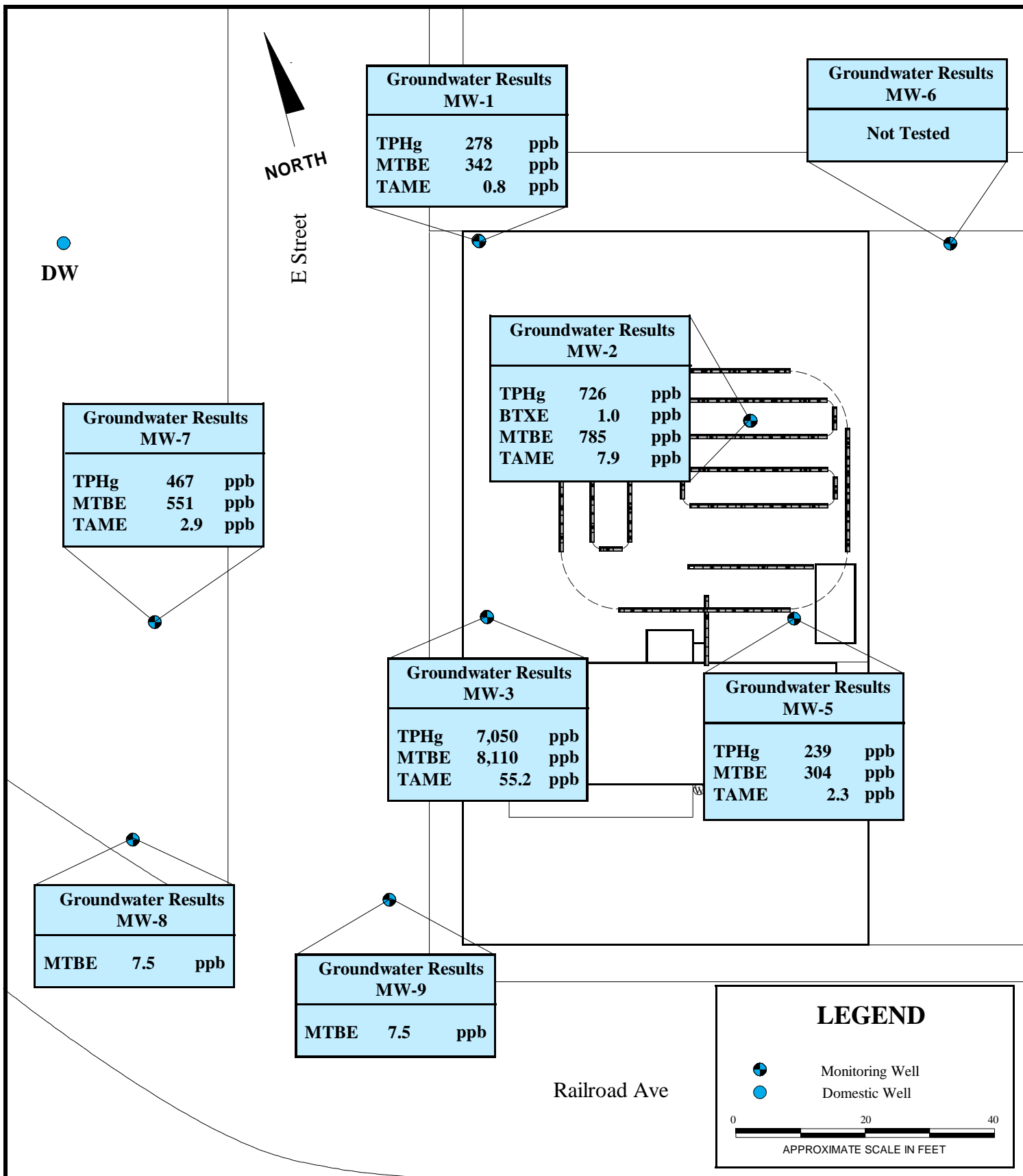
Figure

BO&T Old Office  
211 Railroad Ave  
Blue Lake, California 95525

Project No.  
SP-23

Report Date  
9/13/06

4



## GROUNDWATER ANALYTICAL RESULTS

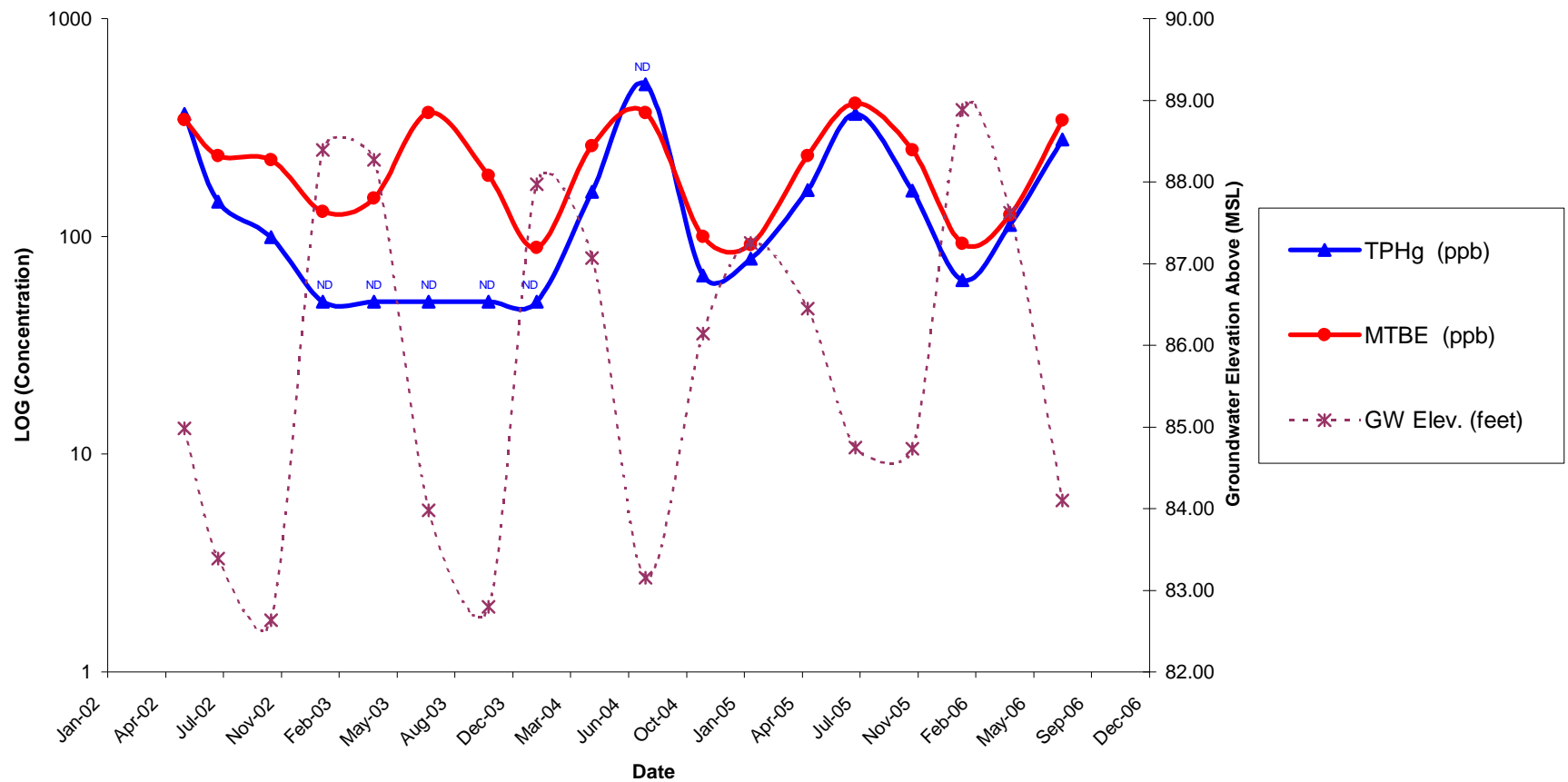
BO&T Old Office  
211 Railroad Ave  
Blue Lake, California 95525

Project No.  
SP-23

Report Date  
9/13/06

Figure

5



### MW-1 HYDROCARBON CONCENTRATIONS VS. TIME

BO&T Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

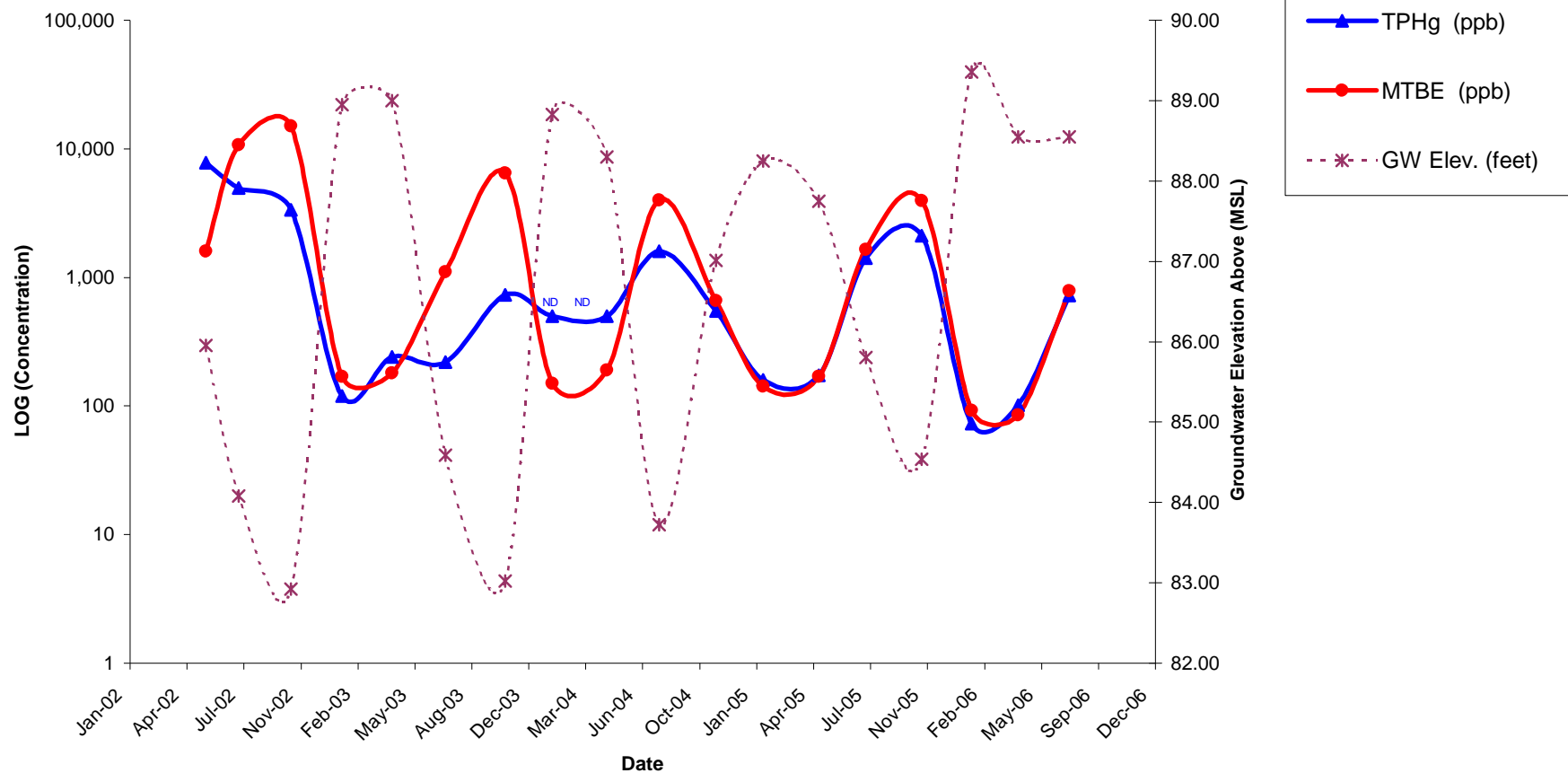
Project No.  
SP-23

Date  
6/2/2006

Figure

6





### MW-2 HYDROCARBON CONCENTRATIONS VS. TIME

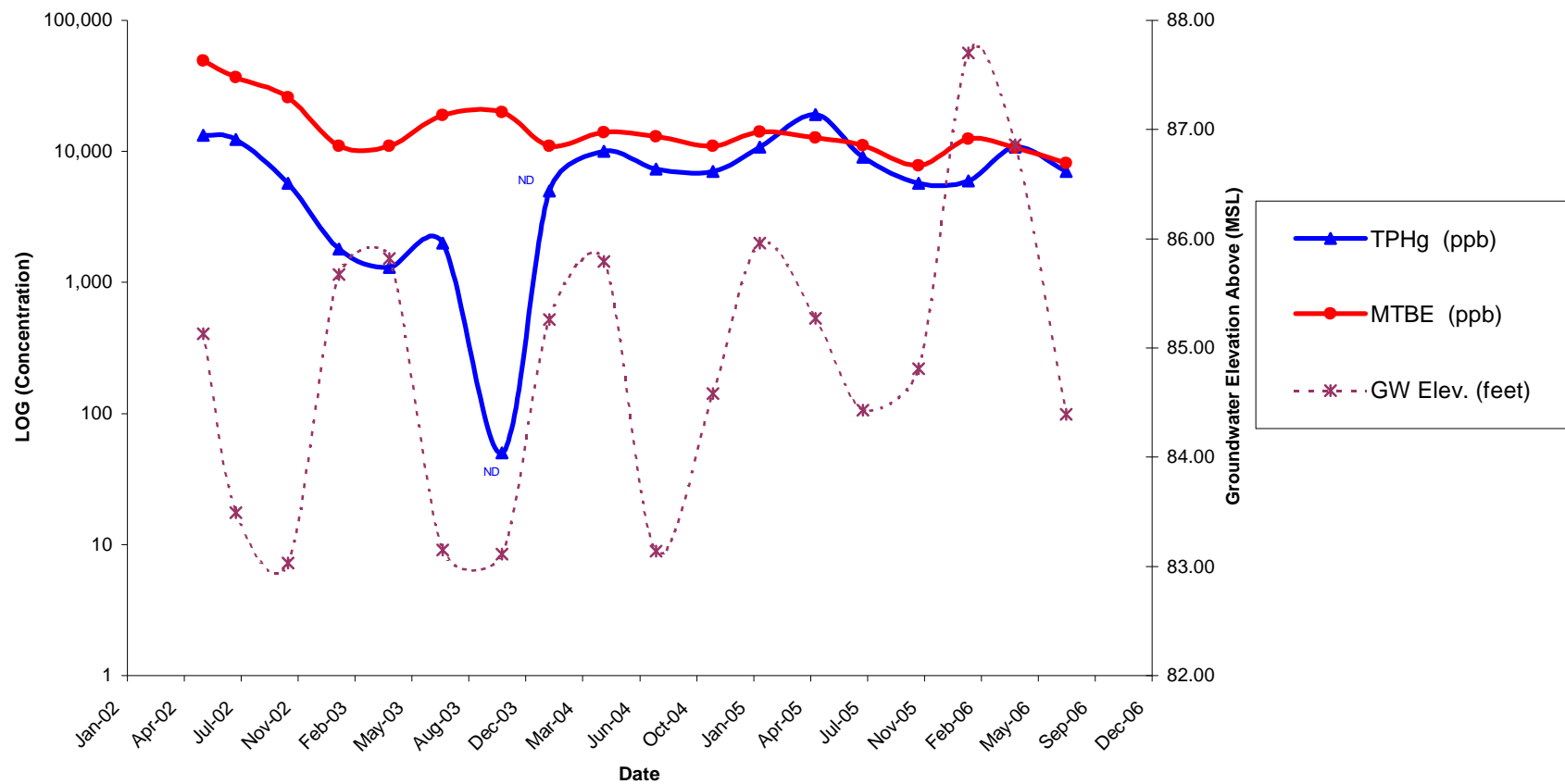
BO&T Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Project No.  
SP-23

Date  
6/2/2006

Figure

7



### MW-3 HYDROCARBON CONCENTRATIONS VS. TIME

BO&T Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Project No.

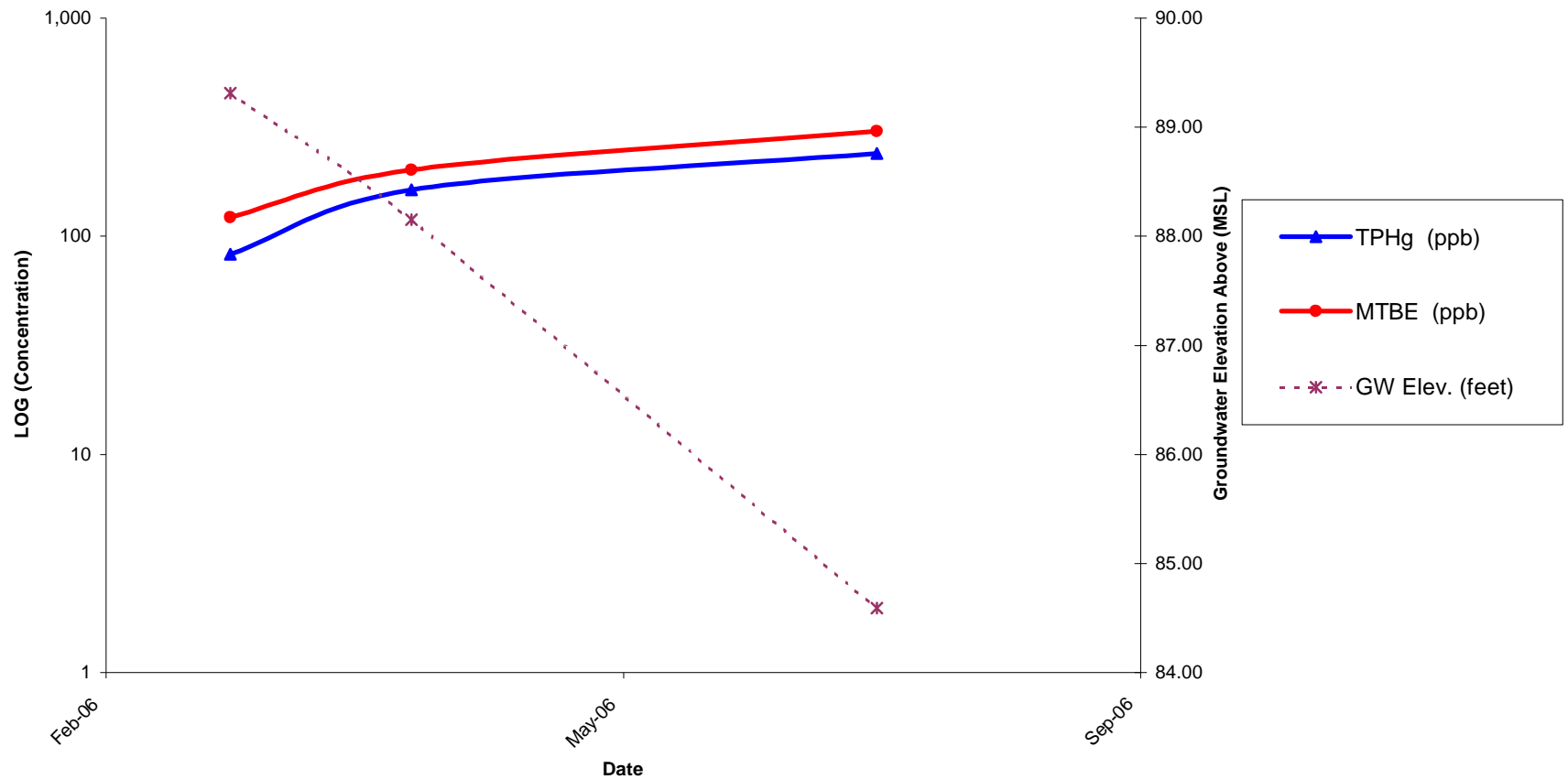
SP-23

Date

6/2/2006

Figure

8



### MW-5 HYDROCARBON CONCENTRATIONS VS. TIME

BO&T Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Project No.

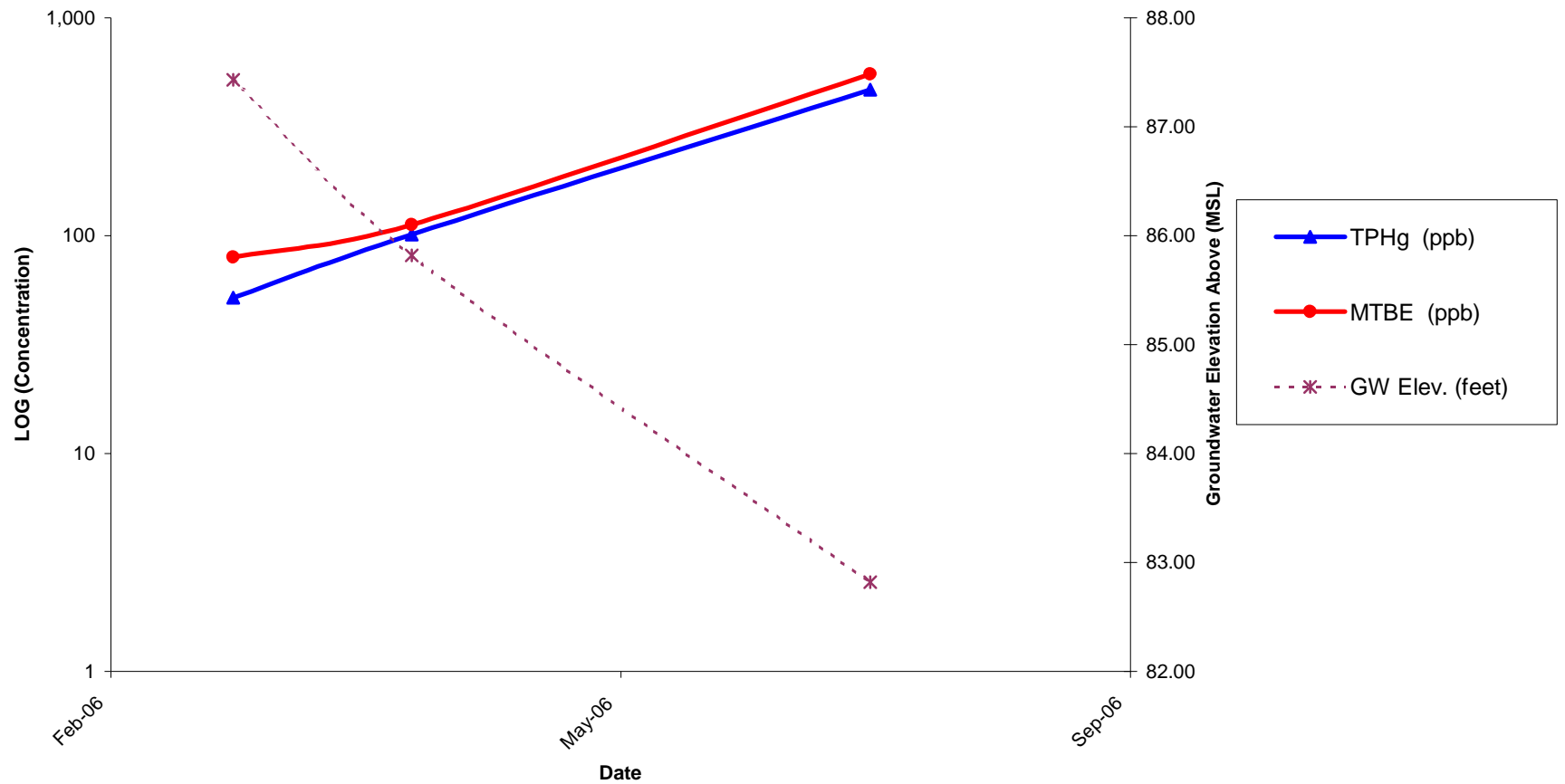
SP-23

Date

6/2/2006

Figure

9



### MW-7 HYDROCARBON CONCENTRATIONS VS. TIME

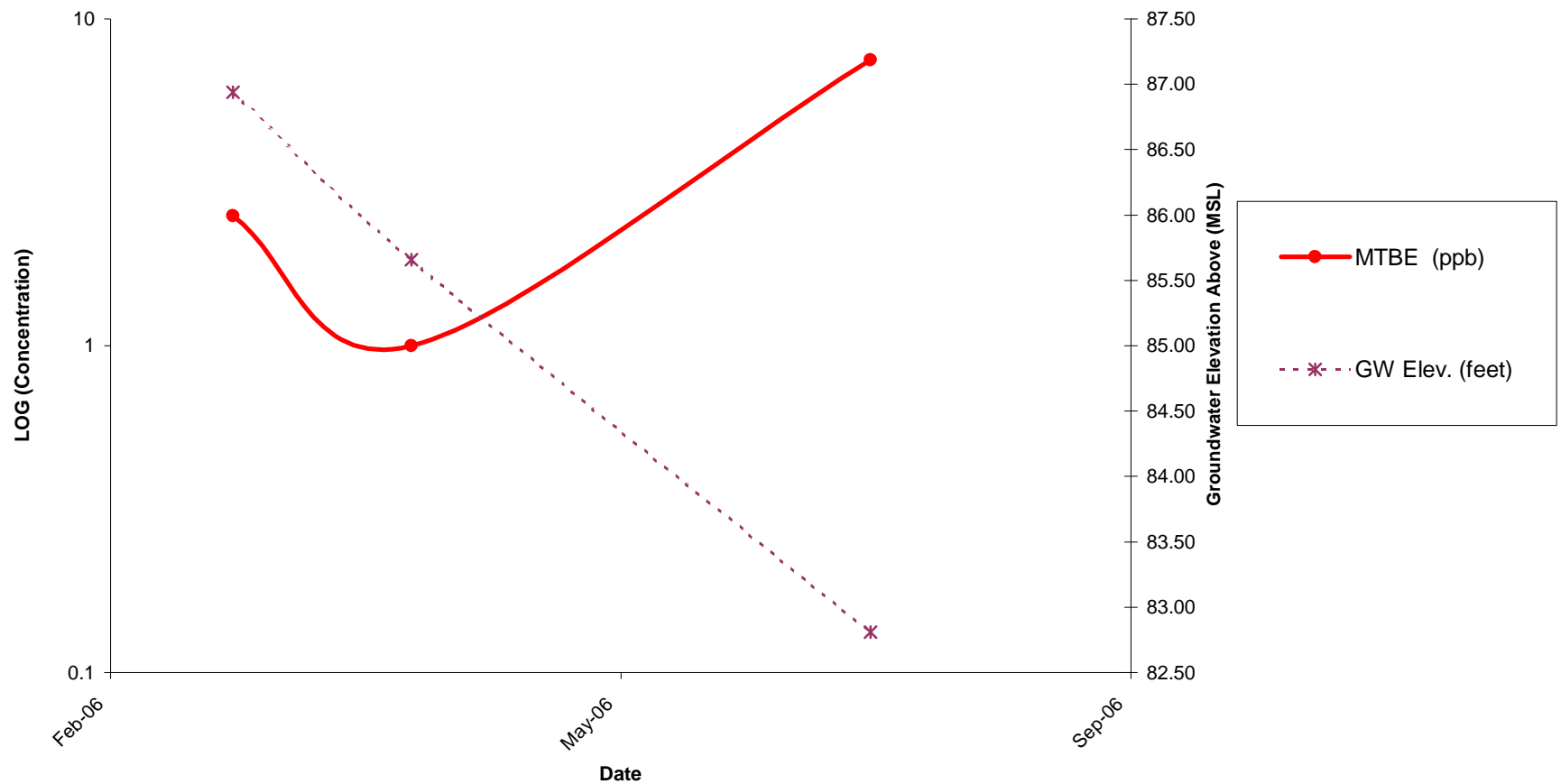
BO&T Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Project No.  
SP-23

Date  
6/2/2006

Figure

10



### MW-8 HYDROCARBON CONCENTRATIONS VS. TIME

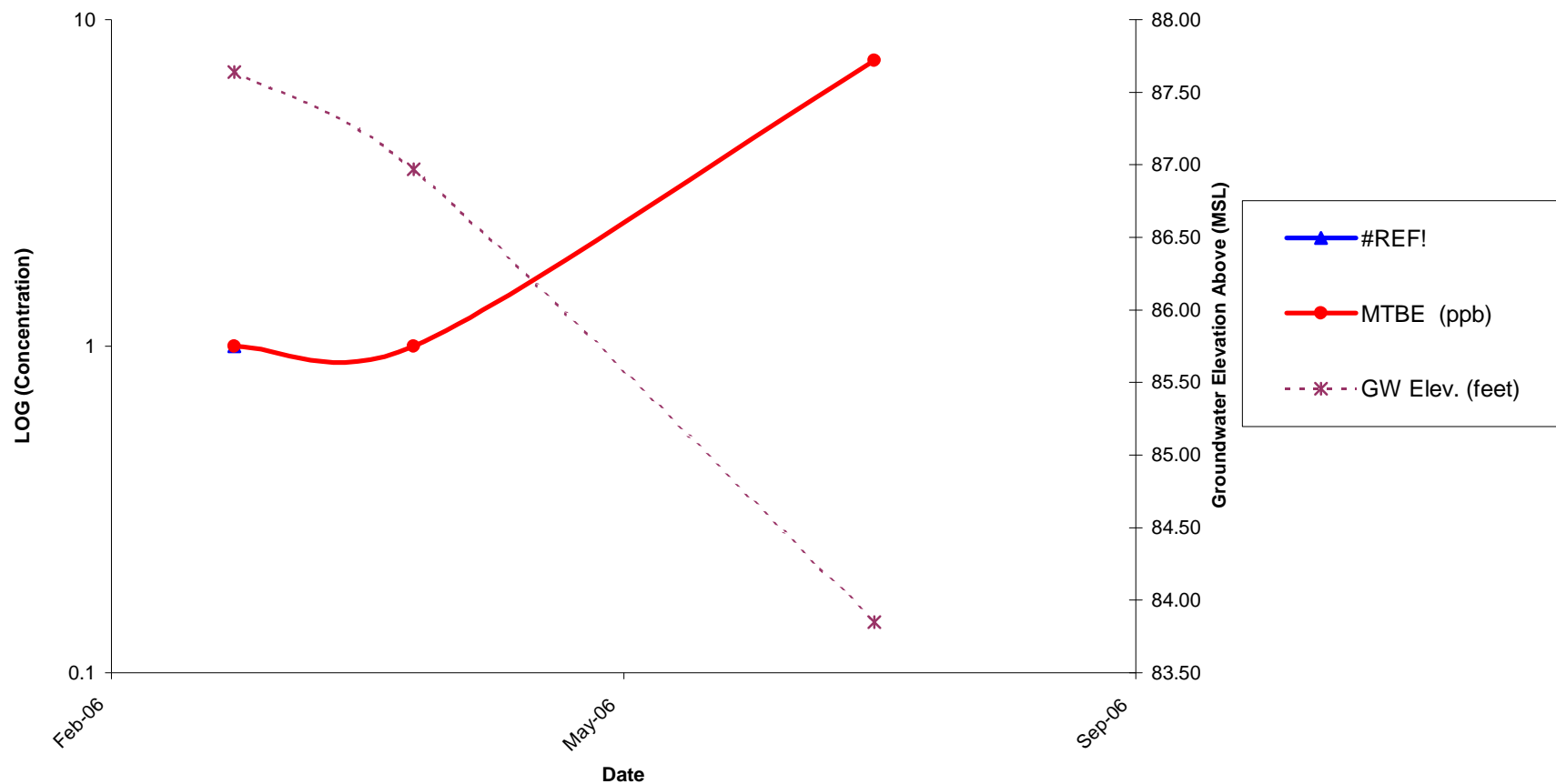
BO&T Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Project No.  
SP-23

Date  
6/2/2006

Figure

11



### MW-9 HYDROCARBON CONCENTRATIONS VS. TIME

BO&T Old Office  
211 Railroad Avenue  
Blue Lake, California 95525

Project No.  
SP-23

Date  
6/2/2006

Figure

12

# Appendices

# **Appendix A**





basic  
laboratory

www.basiclab.com

voice 530.243.7234 2218 Railroad Avenue  
fax 530.243.7491 Redding, California 96001

July 27, 2006

**Lab ID: 6070571**


Andy Malone  
SOUNPACIFIC  
4612 GREENWOOD HEIGHTS DR  
KNEELAND, CA 95549  
RE: BO&T OLD OFFICE SP-23

Dear Andy Malone,

Enclosed are the analysis results for Work Order number 6070571. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,

  
For



Ricky D. Jensen  
Laboratory Director  
California ELAP Certification Number 1677



basic  
laboratory

www.basiclab.com

voice: 530.243.7234 2218 Railroad Avenue  
fax: 530.243.7434 Redding, California 96001

**Report To:** SOLNPACIFIC  
4612 GREENWOOD HEIGHTS DR  
KNEELAND, CA 95549

**Attention:** Andy Malone

**Project:** BO&T OLD OFFICE SP-23

**Lab No:** 6070571  
**Reported:** 07/27/06  
**Phone:** 707-269-0884  
**P.O. #**

### Volatile Organic Compounds

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
<b>MW-1 Water (6070571-01) Sampled: 07/13/06 00:00 Received: 07/20/06 09:59</b>									
Gasoline	ug/l	278	G-03		50.0	EPA 8015/8260B	07/20/06	07/20/06	B6G0485
Benzene	"	ND			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"
Ethylbenzene	"	ND			0.5	"	"	"	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	342	4-03		10.0	"	07/20/06	"	"
Di-isopropyl ether	"	ND			0.5	"	07/20/06	"	"
Tert-amyl methyl ether	"	0.8			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		98.2 %			43-155	"	"	"	"
<b>MW-2 Water (6070571-02) Sampled: 07/13/06 00:00 Received: 07/20/06 09:59</b>									
Gasoline	ug/l	726	G-03, R-01, R-07		500	EPA 8015/8260B	07/20/06	07/20/06	B6G0485
Benzene	"	1.0	R-07		1.0	"	07/20/06	"	"
Toluene	"	ND	R-07		1.0	"	"	"	"
Ethylbenzene	"	ND	R-07		1.0	"	"	"	"
Xylenes (total)	"	ND	R-07		2.0	"	"	"	"
Methyl tert-butyl ether	"	785	R-01, R-07		20.0	"	07/20/06	"	"
Di-isopropyl ether	"	ND	R-07		1.0	"	07/20/06	"	"
Tert-amyl methyl ether	"	7.9	R-07		1.0	"	"	"	"
Ethyl tert-butyl ether	"	ND	R-07		1.0	"	"	"	"
Tert-butyl alcohol	"	ND	R-07		100	"	"	"	"
Surrogate: 4-Bromofluorobenzene		96.6 %			43-155	"	"	"	"
<b>MW-3 Water (6070571-03) Sampled: 07/13/06 00:00 Received: 07/20/06 09:59</b>									
Gasoline	ug/l	7050	G-03, R-07		4000	EPA 8015/8260B	07/20/06	07/20/06	B6G0485
Benzene	"	ND	R-07		40.0	"	"	"	"
Toluene	"	ND	R-07		40.0	"	"	"	"
Ethylbenzene	"	ND	R-07		40.0	"	"	"	"
Xylenes (total)	"	ND	R-07		80.0	"	"	"	"
Methyl tert-butyl ether	"	8110	R-01, R-07		1000	"	07/20/06	"	"
Di-isopropyl ether	"	ND	R-07		40.0	"	07/20/06	"	"
Tert-amyl methyl ether	"	55.2	R-07		40.0	"	"	"	"
Ethyl tert-butyl ether	"	ND	R-07		40.0	"	"	"	"
Tert-butyl alcohol	"	ND	R-07		4000	"	"	"	"
Surrogate: 4-Bromofluorobenzene		97.0 %			43-155	"	"	"	"
<b>MW-5 Water (6070571-04) Sampled: 07/13/06 00:00 Received: 07/20/06 09:59</b>									
Gasoline	ug/l	239	G-03		50.0	EPA 8015/8260B	07/20/06	07/20/06	B6G0485
Benzene	"	ND			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"
Ethylbenzene	"	ND			0.5	"	"	"	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	304	R-01		10.0	"	07/20/06	"	"
Di-isopropyl ether	"	ND			0.5	"	07/20/06	"	"
Tert-amyl methyl ether	"	2.3			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		96.6 %			43-155	"	"	"	"

*Andy Malone*

Approved By

Basic Laboratory, Inc.  
California D.O.H.S. Cert #1677



www.basic-lab.com

voice 530.243.7734 2218 Railroad Avenue  
fax 530.243.7494 Redding, California 96001

**Report To:** SOUNPACIFIC  
4612 GREENWOOD HEIGHTS DR  
KNEFLAND, CA 95549  
**Attention:** Andy Malone  
**Project:** BO&T OLD OFFICE SP-23

**Lab No:** 6070571  
**Reported:** 07/27/06  
**Phone:** 707-269-0884  
**P.O. #**

### Volatile Organic Compounds

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
<b>MW-7 Water (6070571-05) Sampled:07/13/06 00:00 Received:07/20/06 09:59</b>									
Gasoline	ug/l	467	G-03		50.0	EPA 8015/8260B	07/20/06	07/20/06	B6G0485
Benzene	"	ND			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"
Ethylbenzene	"	ND			0.5	"	"	"	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	551	R-01		20.0	"	07/20/06	"	"
Di-isopropyl ether	"	ND			0.5	"	07/20/06	"	"
Tert-amyl methyl ether	"	2.9			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		94.2 %			43-155	"	"	"	"
<b>MW-8 Water (6070571-06) Sampled:07/13/06 00:00 Received:07/20/06 09:59</b>									
Gasoline	ug/l	ND			50.0	EPA 8015/8260B	07/20/06	07/20/06	B6G0485
Benzene	"	ND			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"
Ethylbenzene	"	ND			0.5	"	"	"	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	7.5			1.0	"	"	"	"
Di-isopropyl ether	"	ND			0.5	"	"	"	"
Tert-amyl methyl ether	"	ND			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		97.2 %			43-155	"	"	"	"
<b>MW-9 Water (6070571-07) Sampled:07/13/06 00:00 Received:07/20/06 09:59</b>									
Gasoline	ug/l	ND			50.0	EPA 8015/8260B	07/20/06	07/20/06	B6G0485
Benzene	"	ND			0.5	"	"	"	"
Toluene	"	ND			0.5	"	"	"	"
Ethylbenzene	"	ND			0.5	"	"	"	"
Xylenes (total)	"	ND			1.0	"	"	"	"
Methyl tert-butyl ether	"	7.5			1.0	"	"	"	"
Di-isopropyl ether	"	ND			0.5	"	"	"	"
Tert-amyl methyl ether	"	ND			0.5	"	"	"	"
Ethyl tert-butyl ether	"	ND			0.5	"	"	"	"
Tert-butyl alcohol	"	ND			50.0	"	"	"	"
Surrogate: 4-Bromofluorobenzene		98.6 %			43-155	"	"	"	"

*Rich Janacek*  
Approved By

Basic Laboratory, Inc.  
California D.O.H.S. Cert #1677



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voice 530.243.7234 2218 Railroad Avenue  
fax 530.243.7294 Redding, California 96001

**Report To:** SOUNPACIFIC  
4612 GREENWOOD HEIGHTS DR  
KNEELAND, CA 95549  
**Attention:** Andy Malone  
**Project:** BO&T OLD OFFICE SP-23

**Lab No:** 6070571  
**Reported:** 07/27/06  
**Phone:** 707-269-0884  
**P.O. #**

### Notes and Definitions

R-07 The sample was diluted due to the presence of high levels of target analytes resulting in elevated reporting limits.  
R-01 The Reporting Limit and Detection Limit for this analyte have been raised due to necessary sample dilution.  
G-03 The GRO result reported for this sample does not match the laboratory's gasoline standard, but is due primarily to MTBE.  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the detection limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
< Less than reporting limit  
≤ Less than or equal to reporting limit  
> Greater than reporting limit  
≥ Greater than or equal to reporting limit  
MDL Method Detection Limit  
RL/ML Minimum Level of Quantitation  
MCL/AL Maximum Contaminant Level/Action Level  
mg/kg Results reported as wet weight  
TTLC Total Threshold Limit Concentration  
STLC Soluble Threshold Limit Concentration  
TELP Toxicity Characteristic Leachate Procedure



Approved By

Basic Laboratory, Inc.  
California D.O.H.S. Cert #1677

## BASIC LABORATORY CHAIN OF CUSTODY RECORD

2218 Railroad Ave., Redding, CA 96001 (530) 243-7234 FAX (530) 243-7494

LAB #:

6070571

CLIENT NAME:

Soun Pacific

PROJECT NAME:

BO#Told office

PROJECT #:

SP-23

SAMPLE TYPE:

Water

ADDRESS:

P.O. BOX 13  
Kneeland CA, 95549

REQUESTED COMP. DATE:

Standard 8-3-06

STATE FORMS?

# OF SAMPLES:

2K50 7

TURN AROUND TIME: STD ☒ RUSH ☐

PAGE 1 OF 1

PROJECT MANAGER:

Andy Malone

PHONE: (530)

269-0884

FAX: (530)

269-0699

E-MAIL: Andy@

SounPacific.com

INVOICE TO:

Soun Pacific

PO#:

SPECIAL MAIL ☐E-MAIL ☒FAX ☐FDT ☒

## ANALYSIS REQUESTED

# OF BOTTLES

TPH<sub>2</sub> (EPA 8260)

BTX

SOX<sub>2</sub>

REP:

ID#:

SYSTEM#:

GLOBAL ID #:

T0602300460

QC-1 2 3 4

LAB ID

REMARKS

DATE TIME WATER COMP SOIL SAMPLE DESCRIPTION

DATE	TIME	WATER	COMP	SOIL	SAMPLE DESCRIPTION
7-13-06		X			MW-1
					MW-2
					MW-3
					MW-5
					MW-7
					MW-8
					MW-9

3 3 3 3 3 3 3

X X X

X X X

X X X

1 2 3 4 5 6 7

Also E-mail: greg@SounPacific.com  
analytical@SounPacific.comPRESERVED WITH: HNO<sub>3</sub> ☐ H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐ ZnAcet/NaOH ☐ HCL ☒ NaThio ☐ OTHER

SAMPLED BY:

Stephen Watkins

DATE/TIME:

7-13-06

RELINQUISHED BY:

J. C. Jones

DATE/TIME:

7/17/06

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY: (SAMPLES UNVERIFIED)

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY LAB: (VERIFIED)

Teresa J. O'Brien

DATE/TIME:

7-20-06 9:59

SAMPLES SHIPPED VIA: UPS FEDEX POST BUS OTHER

INSTRUCTIONS, TERMS AND CONDITIONS ON BACK.

## **Appendix B**



# Standard Operating Procedures

## Monitoring Well Purging and Groundwater Sampling

All SounPacific employees and contractors shall adopt the following procedures any time that groundwater samples are to be taken from an existing groundwater monitoring well.

Prior to the implementation of these procedures, the groundwater level **MUST** be measured and the presence of free phase hydrocarbons determined in accordance with SounPacific's Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements.

### Equipment Checklist

- q **Gauging Data / Purge Calculations Sheet used for water level determination**
- q Chain of Custody Form
- q pH/ Conductivity / Temperature meter
- q Pencil or Pen
- q Indelible Marker
- q Calculator
- q Disposable Gloves
- q Distilled Water
- q Alconox/liquinox liquid or powdered non-phosphate cleaner
- q Buckets or Tubs for decontamination station
- q Bottom-filling bailer or pumping device for purging
- q Disposable bottom-filling bailer and emptying device for sampling
- q String, twine or fishing line for bailers
- q Sample containers appropriate for intended analytical method (check with lab)
- q Sample labels
- q Site Safety Plan
- q Tools necessary to access wells
- q Drum space on site adequate for sampling event

## **SounPacific Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements, Page 2 of 3**

### **Procedure**

1. Review Site Safety Plan and utilize personal protection appropriate for the contaminants that may be encountered.
2. Measure groundwater levels and check for the presence of free product in accordance with the Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements.

### **Purging**

3. Calculate and record the volume of standing water in each well using the information provided on the Gauging Data / Purge Calculations sheet.  
 $(DTB-DTW) \times \text{Conversion Factor} = \text{Casing Volume}.$
4. The purge volume shall be at least three times and no more than seven times the volume of standing water (the casing volume).
5. Purge the well by bailing or pumping water from the well into a calibrated receptacle, such as a five gallon bucket or tub with markings to indicate one gallon increments. Collect purgeate in a 55 gallon labeled drum and store on site. Drum labels should include the date, contents, site number, and SounPacific's name and telephone number.
6. Take measurements of pH, conductivity, temperature, and visual observations to verify the stabilization of these parameters. At least five measurements of these parameters should be made throughout the purging process. The parameters shall be considered stabilized if successive measurements vary by less than 0.25 pH units, 10% of conductivity in  $\mu\text{S}$ , and  $1^{\circ}\text{C}$  (or  $1.8^{\circ}\text{F}$ ). Continue purging until at least three times the casing volume has been removed, and the measured parameters have stabilized as indicated above. Do not exceed seven casing volumes.
7. Take a final depth to groundwater measurement and calculate the casing volume of the recharged well. Ideally, the casing volume should have recharged to at least 80% of the original measured casing volume before sampling commences. If due to slow recharge rates it is not feasible to wait for the well to fully recharge, then note this on the Gauging Data / Purge Calculation Sheet and proceed to sample following the procedure below.



## **Sampling**

8. **After completing groundwater measurement, and checking for free product if necessary, in accordance with SounPacific's Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements, and after purging monitoring wells as described above, groundwater samples may be collected.**
9. Slowly lower a clean, previously unused disposable bailer into the well water approximately half of the bailer length, and allow the bailer to slowly fill.
10. Withdraw the full bailer from the monitoring well and utilize the included (clean and unused) bottom-emptying device to fill the necessary sample containers, and seal the container with the included PTFE (Teflon) lined cap.
11. When filling VOAs, fill the VOA completely full, with the meniscus rising above the rim of the bottle. Carefully cap the VOA and invert it and gently tap it to determine whether air bubbles are trapped inside. If the VOA contains air bubbles, refill the VOA and repeat this step.
12. All samples shall be labeled with the Sample ID, the Sample Date, and the Sample Location or Project Number. Use an indelible marker for writing on sample labels.
13. Record all pertinent sample data on the Chain of Custody.
14. Place samples in an ice chest cooled to 4°C with ice or "blue ice". Bottles should be wrapped in bubble wrap, and VOA's should be inserted in a foam VOA holder to protect against breakage. Samples are to be kept at 4°C until delivered to the laboratory. Any transference of sample custody shall be indicated on the Chain of Custody with the appropriate signatures as necessary.
15. Utilize clean, previously unused gloves, bailer and line, and bottom-emptying device for each well sampled.
16. When finished with all sampling, close and secure all monitoring wells.
17. Leave the site cleaner than when you arrived and drive safely.



# **Standard Operating Procedures**

## **Groundwater Level Measurements and Free Phase Hydrocarbon Measurements**

All SounPacific staff and contractors shall adopt the following procedures any time that groundwater elevations are determined for the purposes of establishing groundwater gradient and direction, and prior to any sampling event.

Wells are to be tested for free phase hydrocarbons (free product) before the first development or sampling of any new well, and in any well that has historically contained free product.

### **Equipment Checklist**

- q Combination water level / free phase hydrocarbon indicator probe (probe)
- q Gauging Data / Purge Calculations Sheet
- q Pencil or Pen/sharpie
- q Disposable Gloves
- q Distilled Water and or know water source on site that is clean
- q Alconox (powder) or Liquinox (liquid) non-phosphate cleaners—do not use soap!
- q Buckets or Tubs for decontamination station
- q Tools necessary to access wells
- q Site Safety Plan
- q This Standard Operating Procedure
- q Notify Job site business that you will be arriving to conduct work.

### **Procedure**

1. Review Site Safety Plan and utilize personal protection appropriate for the contaminants that may be encountered.
2. Access and open all monitoring wells to be measured. Allow wells to equilibrate for approximately 15 minutes before taking any measurements.

3. Decontaminate probe with Alconox or Liquinox solution, and rinse with distilled water.
4. Determine the diameter of the well to be measured and indicate this on the Gauging Data / Purge Calculations Sheet.
5. Words of caution: Please be careful with water level and product meters probes are not attached with high strength material so please make sure to avoid catching the end on anything in the well and make sure not to wind reel to the point that it could pull on the probe. *If product is suspect in a well, go to step 6, if **no** product is suspected go to step 7 below.*
6. **When product is present or suspected:** use the product level meter. Clip the static charge clamp to the side of the well casing. Then lower probe into the well through the product/water interface about one foot if possible. Then slowly raise the probe back up through the product/water interface layer and record the level as the tone changes from solid to broken-record this level in the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTP). Continue to raise the probe up through the product until the tone stops completely-record this level on the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTW). Then go to step 8.
7. **When no product is present or suspected:** If no free product is present, record the depth of the water (to the nearest 0.01 foot) relative to the painted black mark on the top of the well casing. Leave the probe in the well just a hair above the water level to ensure the well as equilibrated. As the well rises, the tone will sound. Make sure no increase in water levels have occurred in over a ten-minute period. Water levels can lower as well as rise. Make sure you note when the level you keep lowering the probe to has remained stable for at least ten minutes. Once this has been accomplished, please record this level in the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTW).
8. Turn off the probe, and use the probe to determine the depth to the bottom of the well relative to the top of the well casing. This is the depth to bottom measurement (DTB).
9. Decontaminate probe and tape by washing in an Alconox/Liquinox solution (***read directions on solution for ratio of water to cleanser***) and use the toothbrush provided to remove any foreign substance from the probe and tape. Then triple rinse probe and tape with clean water and then proceed to take measurements in the next well.
10. If sampling is to occur, proceed to implement SounPacific's Standard Operating Procedure for Monitoring Well Purging and Sampling. If no sampling is to be performed, close and secure all wells and caps.

# Appendix C

## GAUGING DATA/PURGE CALCULATIONS

Job Site: BOBT old officeJob No.: SP-23Draw: 3rd Quarter 2006 SamplingDate: 7-13-06

RECEIVED

7/24/06

Seun Pacific

Environmental

Services

(707) 269-0896

Well ID	CA (in.)	DTB (ft)	DTW (ft)	ST (ft)	CY (gpd)	FY (gpd)	TFL (ft)	Notes
MW-1	2	14.43	6.34	8.09	1.29	3.88		No sheen, no HC odor
MW-2	2	14.54	6.45	8.09	1.29	3.88		Suspected iron sheen, no HC odor
MW-3	2	14.42	5.92	8.50	1.36	4.08		Suspected iron sheen, no HC odor, Strong organic odor
MW-5	2	12.92	6.65	6.27	1.00	3.00		Suspected iron sheen, no HC odor, mild organic odor
MW-6	2							
MW-7	2	12.38	6.44	5.94	0.95	2.85		Suspected iron sheen, no HC odor
MW-8	2	12.39	5.76	6.63	1.06	3.18		Suspected iron sheen, no HC odor
MW-9	2	12.49	4.31	8.18	1.30	3.90		Suspected iron sheen, no HC odor, mild organic odor

## Definitions:

CA = Well Diameter

DTB = Depth to Bottom

DTW = Depth to Water

ST = Standed Thickness (DTB-DTW)

CY = Pump Volume (ST x CA)

FY = Pump Volume (standard 3 x 20)

well Development 30 x 20)

TFL = Thickness of Sample Plastic Layer

## Conversion Factors (ft)

1 in. dia. x 1 ft = 0.349 gal

1 in. dia. x 1 ft = 0.45 gal

1 in. dia. x 1 ft = 0.48 gal

Samples:

Stephen Watkinsonsite Drags: 2 Full H<sub>2</sub>O

1 Full Soil

0 Empty

1 Trash

## Well Gauging/Sampling Report

Sheet 1 of 7

Date: <u>7-13-06</u>		Project Name: <u>BO &amp; T old office</u>		Project No: <u>SP-23</u>		Well Number: <u>MW-1</u>	
Analyses Tested: <u>TPH, BTEX, SOXs by 8260</u>							
Sample Containers: <u>(3) HCL Boas</u>							
Purge Technique:		<input type="checkbox"/> Bailor		<input checked="" type="checkbox"/> Pump			
Sonde Used:		<input type="checkbox"/> Water Meter		<input checked="" type="checkbox"/> Interface Meter			
<b>Water &amp; Free Product Levels</b>							
Time	Depth to Water	Depth to Product	Notes				
<u>9:30</u>	<u>6.33</u>		<u>no sheen, no HC odor</u>				
<u>10:10</u>	<u>6.34</u>		<u>no sheen, no HC odor</u>				
	<u>End</u>						
<b>Field Measurements</b>							
Time	Total Vol. Removed (gal)	pH	Temp (F)	Cond. (mc/cm)	DO (mg/L)	DO (%)	
<u>1:09</u>	<u>0</u>	<u>6.26</u>	<u>60.54</u>	<u>0.500</u>	<u>0.42</u>	<u>4.2</u>	
<u>1:14</u>	<u>1.29</u>	<u>6.22</u>	<u>60.94</u>	<u>0.440</u>	<u>0.38</u>	<u>3.8</u>	
<u>1:17</u>	<u>2.58</u>	<u>6.21</u>	<u>60.69</u>	<u>0.435</u>	<u>0.40</u>	<u>4.0</u>	
<u>1:21</u>	<u>3.88</u>	<u>6.20</u>	<u>60.04</u>	<u>0.443</u>	<u>0.40</u>	<u>4.0</u>	
Field Scientist: <u>Stephen Watkins</u>							

Sheet 2 of 7



## Well Gauging/Sampling Report

Sheet 3 of 7

Date: <u>7-13-06</u>		Project Name: <u>PO&amp;T old office</u>		Project No: <u>SP-23</u>		Well Number: <u>MW-3</u>	
Analyses Tested: <u>TPH<sub>g</sub>, BTEX, 5 OXys by 8260</u>							
Sample Containers: <u>(3) HCL Vials</u>							
Purge Technique:		<input type="checkbox"/> Bailor		<input checked="" type="checkbox"/> Pump			
Sounding Used:		<input type="checkbox"/> Water Meter		<input checked="" type="checkbox"/> Interface Meter			
Water & Free Product Levels							
Time	Depth to Water	Depth to Product	Notes				
<u>9:19</u>	<u>5.85</u>		<u>Sheen, No HC odor</u>				
<u>9:58</u>	<u>5.92</u>		<u>no sheen, no HC odor</u>				
<u>10:25</u>	<u>5.92</u>		<u>Suspected iron sheen, no HC odor</u>				
<u>End</u>			<u>Strong organic odor</u>				
Field Measurements							
Time	Total Vol. Removed (gal)	pH	Temp (F)	Cond. (ns/cm)	DO (mg/L)	DO (%)	
<u>11:08</u>	<u>0</u>	<u>6.79</u>	<u>61.41</u>	<u>0.520</u>	<u>0.54</u>	<u>5.5</u>	
<u>11:13</u>	<u>1.36</u>	<u>6.49</u>	<u>63.54</u>	<u>0.201</u>	<u>0.72</u>	<u>7.6</u>	
<u>11:16</u>	<u>2.72</u>	<u>6.34</u>	<u>63.26</u>	<u>0.181</u>	<u>0.76</u>	<u>7.9</u>	
<u>11:19</u>	<u>4.08</u>	<u>6.22</u>	<u>63.33</u>	<u>0.175</u>	<u>1.08</u>	<u>11.3</u>	
Field Scientist: <u>Stephen Watkins</u>							



## Well Gauging/Sampling Report

Sheet 4 of 7

Date: <u>7-13-06</u>		Project Name: <u>BOAT old office</u>		Project No: <u>SP-23</u>		Well Number: <u>MW-5</u>	
Analyses Tested: <u>TPH<sub>g</sub>, BTEX, 5 OXys by 8260</u>							
Sample Containers: <u>(3) HCL Bots</u>							
Purge Technique:		<input type="checkbox"/> Bailor		<input checked="" type="checkbox"/> Pump			
Sonder Used:		<input type="checkbox"/> Water Meter		<input checked="" type="checkbox"/> Interface Meter			
Water & Free Product Levels							
Time	Depth to Water	Depth to Product	Notes				
9:23	6.64		suspected iron sheen, NO HCL odor				
10:02	6.65		" "				
	End		mild organic odor				
Field Measurements							
Time	Total Vol. Removed (gal)	pH	Temp (°F)	Cond. (µm/cm)	DO (mg/L)	DO (%)	
12:23	0	6.49	57.73	0.597	0.39	3.8	
12:27	1.00	6.61	58.70	0.360	0.52	5.1	
12:31	2.00	6.51	58.49	0.293	0.50	5.0	
12:34	3.00	6.47	58.45	0.289	0.56	5.5	
<p style="text-align: right;">Field Scientist: <u>Stephen Watkins</u></p>							



## Well Gauging/Sampling Report

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Date: <u>7-13-06</u>		Project Name: <u>BoAT old office</u>		Project No: <u>SP-23</u>		Well Number: <u>MW-8</u>	
Analyses Tested: <u>TPH<sub>2</sub>, BTEX, SOX<sub>2</sub> by 8260</u>							
Sample Containers: <u>(3) HCL Vials</u>							
Purge Technique:		<input type="checkbox"/> Bailor		<input checked="" type="checkbox"/> Pump			
Sounding Used:		<input type="checkbox"/> Water Meter		<input checked="" type="checkbox"/> Interface Meter			
Water & Free Product Levels							
Time	Depth to Water	Depth to Product	Notes				
9:11	5.76		suspected iron stain, no HC odor				
9:48	5.76						
End							
Field Measurements							
Time	Total Vol. Removed (gal)	pH	Temp (F)	Cond. (ms/cm)	DO (mg/L)	DO (%)	
11:08	0	6.79	61.41	0.520	0.54	5.5	
11:13	1.06	6.49	63.54	0.201	0.72	7.6	
11:16	2.92	6.34	63.26	0.181	0.76	7.9	
11:19	3.18	6.22	63.33	0.175	1.08	11.3	
<p>Field Scientist: <u>Stephen Watkins</u></p>							



## Well Gauging/Sampling Report

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Date: <u>7-13-06</u>		Project Name: <u>BO &amp; T old off: LE</u>		Project No: <u>SP-23</u>		Well Number: <u>MW-9</u>	
Analyses Tested: <u>TPH<sub>3</sub>, BTEX, 5 OXY, by 8260</u>							
Sample Containers: <u>(3) HCL Vials</u>							
Purge Technique:		<input type="checkbox"/> Bailor		<input checked="" type="checkbox"/> Pump			
Sounder Used:		<input type="checkbox"/> Water Meter		<input checked="" type="checkbox"/> Interface Meter			
Water & Free Product Levels							
Time	Depth to Water	Depth to Product	Notes:				
9:15	4.22		No sheen, no odor				
9:55	4.30		Suspected iron sheen, no HC odor				
10:22	4.31		" "				
End			mild organic odor				
Field Measurements							
Time	Total Vol. Removed (gal)	pH	Temp (F)	Cond. (ms/cm)	DO (mg/L)	DO (%)	
11:58	0	6.04	59.72	0.152	0.40	4.0	
12:02	1.30	6.38	62.54	0.159	0.51	5.3	
12:06	2.60	6.45	61.24	0.182	0.54	5.5	
12:09	3.90	6.35	60.79	0.155	0.47	4.8	
<div style="text-align: right; margin-right: 50px;">Field Scientist: <u>Stephen Watkins</u></div>							